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Baseline Research of Implementation of Recommendations of Expert Panel on School Meals – *Hungry for Success*

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BASELINE RESEARCH OF IMPLEMENTATION OF RECOMMENDATIONS OF EXPERT PANEL ON SCHOOL MEALS - *HUNGRY FOR SUCCESS*

BASELINE REPORT

TNS System Three Social Research

Scottish Executive Social Research
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CONTENTS

CHAPTER ONE	BACKGROUND AND METHODS.....	1
	BACKGROUND	1
	CASE STUDY METHODOLOGY.....	2
	BASELINE RESEARCH	3
	STRUCTURE OF THE REPORT	3
CHAPTER TWO	SCHOOL CHARACTERISTICS	5
	OVERVIEW OF SCHOOL CHARACTERISTICS.....	5
	SUMMARY OF ANY RECENT OR PLANNED CHANGES TO SCHOOL MEAL PROVISION	5
CHAPTER THREE	WHERE PUPILS EAT	7
	THE DINING ROOM	7
	LUNCHTIME RULES, PROCEDURES AND QUEUING	10
	LUNCHTIME AS A SOCIAL OCCASION	13
	SCHOOL MEAL UPTAKE	14
	DECISIONS ON LUNCHTIME CHOICES	17
CHAPTER FOUR	WHAT PUPILS EAT	21
	WHAT DOES THE SCHOOL MEALS SERVICE OFFER?	21
	MENU PLANNING BY FOOD GROUP	22
	PORTION SIZE	25
	SPECIAL DIETS	25
	PUPILS' LUNCHTIME CHOICES	27
	PUPILS' AND TEACHERS' VIEWS ON SCHOOL MEALS	30
CHAPTER FIVE	PUPILS' WIDER DIETS.....	41
	PRIMARY SCHOOLS	42
	SPECIAL SCHOOLS.....	48
	SECONDARY SCHOOLS	50
CHAPTER SIX	FOOD PREFERENCES.....	57
	FOOD AND DRINK PREFERENCES	57
	LUNCHTIME PREFERENCES.....	59
CHAPTER SEVEN	MARKETING OF FOOD AND DRINK WITHIN THE SCHOOL	63
	BRANDING.....	63
	INFORMATION PROVISION	63
	PRESENTATION	64
	INCENTIVISING HEALTHY CHOICES	65
CHAPTER 8	IN-SCHOOL MANAGEMENT OF SCHOOL MEAL PROVISION.....	69
	PREPARATION OF SCHOOL MEALS	69
	SUPERVISION IN THE DINING ROOM.....	70
	CATERING STAFF	71
	CONSULTATION	72
	CONSULTATION WITH PUPILS.....	72
CHAPTER 9	FREE SCHOOL MEALS AND PAYMENT SYSTEMS.....	75
	HOW DO PUPILS PAY FOR THEIR MEALS?.....	75
	HOW MUCH DO SCHOOL MEALS COST?.....	76
	FREE SCHOOL MEALS	77
CHAPTER 10	WHOLE SCHOOL APPROACH TO HEALTHY EATING.....	79
	OTHER IN-SCHOOL FOOD PROVISION.....	79
	HEALTH AND THE CURRICULUM	81

POLICIES AND STRATEGIES TO PROMOTE HEALTH.....	82
CHAPTER 11 SUMMARY AND CONCLUSIONS.....	85
SUMMARY OF PROGRESS AGAINST RECOMMENDATIONS	85
PUPILS' WIDER ATTITUDES AND DIETS	92
CONCLUSIONS	93
ANNEX 1 METHODS.....	97
GENERAL SUMMARY OF APPROACH.....	97
LIMITATIONS ON THE RESEARCH.....	98
ANNEX 2 CASE STUDY SCHOOLS - CRITERIA FOR SELECTION	99
ANNEX 3 GUIDANCE FOR PRIMARY AND SECONDARY SCHOOLS.....	101

CHAPTER ONE BACKGROUND AND METHODS

Background

1.1 The role of school education, and especially of school meal provision, in influencing children's eating patterns was recognised by Scottish Ministers in January 2002 in the establishment of an Expert Panel on School Meals.

1.2 The final report of the Expert Panel, *Hungry for Success: a Whole School Approach to School Meals in Scotland*, was published in November 2002 and included 24 recommendations on school meals, all of which were accepted by Scottish Ministers. Implementation of the recommendations was scheduled to take place in all publicly funded primary and special schools by December 2004 and in all publicly funded secondary schools by December 2006.

1.3 Four different levels of monitoring implementation of the recommendations were proposed in *Hungry for Success*:

- Level 1 – for every school and education authority each year, as part of annual reporting on National Priorities, starting from 2003
- Level 2 – as part of HMIE programme of school inspections, starting from August 2003
- Level 3 – by HMIE working with Associate Assessors to produce a detailed evaluation in 2006
- Level 4 – by independent research commissioned by the Scottish Executive in 2007 to assess the implementation and impact of the recommendations

1.4 This research study, commissioned by the Scottish Executive Education Department and carried out by TNS System Three Social Research was the first stage of the level four monitoring. Its main purpose was to provide a baseline picture of school meal provision across a range of case study schools. The research was intended to form the foundation for longitudinal case studies, allowing the progress made on implementation and impact of the recommendations in *Hungry for Success* within case study schools to be assessed in the future.

1.5 Although some primary and special schools had already taken some steps towards implementing *Hungry for Success* at the time of the baseline study, this stage of the research was not intended to provide a critical assessment of the extent to which case study schools had met the recommendations. The research was carried out in primary and special schools at the start of the 2004 – 2005 school year, immediately prior to the deadline for implementation and identifies the starting position prior to implementation of case study primary and special schools. It is important to bear this in mind when reading the report, as it would be expected these schools would have made further progress on implementation since it was conducted. In secondary schools research was carried out between January and June 2005, between eighteen months to two years in advance of the deadline for implementation. As such the research provides a picture of work required in case study secondary schools to enable them to meet the deadline for implementation.

1.6 Given the case study method employed and the fact that this was a baseline study, these findings should not be interpreted as a final critical assessment of school meal provision against the recommendations in case study schools, nor should it be interpreted as a critical assessment of the position in all Scottish schools.

Case Study Methodology

1.7 This research uses descriptive case study methodology. The use of the case study as a research tool is applicable in situations where an in-depth examination of a contemporary, real-life situation is required. A key strength is that it draws on multiple sources of evidence and employs a variety of techniques to provide an understanding of the case and answer the research questions.

1.8 In this research, multiple case studies were undertaken, each one consisting of a separate enquiry. Each study followed the same method and used the same research instruments, ensuring the reliability of results.

1.9 Individual schools were the case study unit. They were selected to provide a range of schools in different circumstances across a number of criteria. It is important to note that case study research is not sampling research, so that the sample was not intended to be statistically representative of all schools.

1.10 The results are reported individually and presented in a systematic way in the individual reports based on specific themes. They are work in progress, intended for use as baseline texts against which progress at the case study schools can be measured in the future, and are unpublished. The evidence arising from the different elements of the research is available in a comprehensive database which accompanies the reports. This ensures the case studies are replicable over time, a key requirement of the research. It is the intention of the Scottish Executive to use the results as a baseline and that the research is repeated among the participating schools in two years time.

1.11 This report, and the Insight report that accompanies it, provides a collective view of the individual case studies. When reading it, it must be remembered that this is only a summary of the situation in a limited number of schools and does not reflect the situation in all schools in Scotland. Results are empirical and designed to enable greater understanding of a particular situation, in this case progress towards the implementation of the recommendations of *Hungry for Success*, to be developed. Specifically, the results of a case study or of multiple case studies cannot be generalised to the overall population statistically. It is particularly important to bear this in mind when interpreting the results of the quantitative elements of the research. The information on pupils' wider diets, food preferences and opinions of school meals, cannot be assumed to represent those of all pupils across all schools in Scotland; instead they are indicative of pupils' behaviour and opinions across and within the case study schools.

Baseline Research

1.12 Baseline research was carried out at 18 case study schools from 8 local authorities across Scotland during the 2004-2005 school year. The research is described more fully in Annex 1 and in an accompanying database of materials and guidance notes on the method. It involved different elements including the following:

- diet diaries completed by a sample of pupils in each school
- attitudinal questionnaires completed by a sample of pupils in each school
- qualitative interviews with pupils in pairs or small groups
- qualitative interview and consultation with the Head Teacher or a member of senior management with a relevant remit and (informally) with other staff in the school
- interview with the catering manager/head cook and informal discussion with some catering staff
- observation (and sampling of meals) over the lunch hour
- collection of menus and recipes
- observation of alternative food outlets in the area

1.13 These elements generated a large amount of information which will be available for comparison in the next stage of research. The results discussed here are designed to show the situation across case study schools or illustrate a particular case. Where possible they are validated by more than one of the elements above.

1.14 Throughout the report, the results relating to the questionnaires and diet diaries are provided for each type of school. It should be noted that as the base sizes for questionnaires and diet diaries completed by special school pupils (82 and 40 respectively) are less than 100, these results should be interpreted with caution.

Structure of the report

1.15 This report is structured as follows:

- Section B summarises the key characteristics of schools and outlines recent and planned changes to school meal provision
- Section C focuses on *where* pupils eat, including the dining room; lunchtime rules and procedures; the extent to which lunchtime is currently a “social experience” for pupils and pupils’ decisions about where to eat
- Section D describes *what* pupils eat, summarising the types and size of meals offered by the school meals services; providing information on special diets; presenting findings on pupils’ current lunchtime choices and pupils’ and teachers’ views on school meals
- Section E examines pupils’ wider diets in and out of school, by analysing the diet diaries completed by pupils
- Section F examines pupils’ food and drink preferences, including descriptions of the pupils’ ideal lunch
- Section G examines the marketing and promotion of food and drink within the schools, including use of advertising or branded products, what types of information

are provided to pupils and parents about school meals, how food is presented, and whether attempts are made to incentivise healthy choices

- Section H investigates the current processes for managing school meal provision within the schools – for example, how and where food is prepared; numbers of catering staff at the school and levels of training provided; supervision in the dining room; and the extent to which pupils, parents and staff are consulted about the school meals service
- Section I summarises current procedures for paying for meals and claiming free school meals, identifies the costs of meals; as well as summarising pupils' and teachers' views on free school meals and payment systems
- Section J outlines findings on the broader provision of food and water within the school (e.g. tuck shops, breakfast clubs, free fruit and water) as well as on health and the curriculum
- Section K briefly summarises the overall situation in relation to *Hungry for Success* recommendations and highlights those on which more or less progress has been made

1.16 At the start of each chapter, we highlight the relevant *Hungry for Success* recommendations before discussing baseline findings in relation to these.

CHAPTER TWO SCHOOL CHARACTERISTICS

2.1 This chapter presents key facts about the schools and summarises any recent or planned changes relating to school meals or healthy eating within the school.

Overview of school characteristics

2.2 A total of 8 primary, 8 secondary and 2 special schools (which included both primary and secondary age pupils) were used as case studies in the research. Annex 2 provides further details of criteria used in the selection of schools.

2.3 The primary schools, which were located in eight different local authority areas, ranged in pupil numbers from 67 to 412. The mean national primary school pupil number is 180. On average across Scotland, a little over half (51%) of pupils ate a school meal on School Census day in 2004. In the selected primary schools, this varied between 16% and 86%. Apart from these two extremes, school meal take-up in the remainder of the schools was between 35% - 57%. Just over a quarter (26%) of primary school pupils was entitled to free school meals (FSM). Entitlement to free school meals in the sample varied from fewer than 5% in a small rural school to 40% in a large city school.

2.4 Eight secondary schools were also selected from each of the 8 local authority areas. Those schools selected had between 544 and 1404 pupils on their school roll. According to the School Census 2004, the national average secondary school size was 799 pupils. On school census day in 2004, between 13% and 69% of secondary pupils in the selected schools ate a school meal. Across all schools in Scotland, the average take-up on this day was just over 40%. Between 5% and 45% of pupils were entitled to a free school meal. The median value within the selected schools was 14%, which was similar to the national average entitlement for secondary school pupils (16%).

2.5 The two special schools differed in the ages of pupils catered for. While one included secondary age pupils, the other was attended by pupils of both secondary and primary age. School meal uptake and entitlement to free school meals was relatively high in both schools.

Summary of any recent or planned changes to school meal provision

2.7 Recent or planned changes to school meals provision were reported in virtually all of the case study schools. As might be expected, the extent and nature of changes varied by school. Another difference between the schools was the extent to which they were actively making changes, or were implementing change introduced by the local authority. Most of the changes were directly related to the implementation of recommendations in *Hungry for Success*. Broadly, primary schools were ahead of secondary schools in making such changes, which is to be expected given the different timetables set for implementation of the recommendations. The progress in making changes in the two special schools, where implementation should have taken place by December 2004, varied according to their particular circumstances.

2.8 Most of the recent or planned changes related to what pupils eat and the physical environment of the dining area. They include:

- introduction of new menus and recipes
- changes to the type and availability of drinks
- refurbishment and reorganisation of the kitchen and dining areas

2.9 Other planned changes linked to the recommendations included:

- plans to demolish and rebuild schools that will change the physical environment of provision and in the case of one secondary school, it is expected, the up-take of school meals
- more or earlier information on menus
- more active promotion of healthy eating and drinking options and of healthy living more generally
- consultation on aspects of provision such as the physical environment
- staff training

2.10 Staff changes to head cooks or Head Teachers, although not directly arising as a result of *Hungry for Success* recommendations, have had or are expected to have an effect on implementation. Positive changes could be seen where head cooks or Head Teachers had brought in new ideas for implementation. In one secondary school, for example, the change in head cook delayed implementation due to resulting staff shortages that have taken a while to resolve.

2.11 It should be noted that recent changes reported in one secondary school appeared actually to be working against the implementation of the recommendations. This included reduction in catering staff resources and reduction in the quality of ingredients. There were no planned changes in this school to start the implementation of the recommendations, although the cook and Deputy Head had heard of recent changes suggested by the local authority.

CHAPTER THREE WHERE PUPILS EAT

3.1 This chapter summarises baseline findings on where pupils eat, including details of the dining hall, lunchtime rules, procedures and queuing arrangements, the extent to which lunchtime is a social occasion and pupil's decisions about where to eat. Key recommendations from *Hungry for Success* relating to where pupils eat include:

Recommendation 11: *All schools should examine their seating and queuing arrangements to ensure that the social experience of lunch is maximised*

Recommendation 12: *To address queuing difficulties and in any review of the length of the lunch break, the following factors should be considered:*

- *Multiple service points*
- *More cash points in cash cafeterias*
- *Staggered arrivals of diners/separate sittings*
- *Pre-ordering facility*
- *Separate counter for collecting pre-ordered meals*
- *Delivery of pre-ordered meals to lunchtime clubs*
- *Examining the potential for additional outlets elsewhere in the school*
- *The needs of disabled pupils*

Recommendation 13: *When education authorities and schools are examining the structure of the school day, the lunchtime experience should be part of that consideration*

Recommendation 17: *Improvements to the dining room to enhance its atmosphere and ambience, and encourage its use as a social area should be considered as a priority by local authorities and should be taken into account in their wider school estate planning. It is desirable, whenever possible, that a separate dining area should be provided*

Recommendation 18: *Future design, layout and usage, along with other factors such as décor and background music, should be considered by all schools, with significant pupils' input and programmes for change drawn up*

The dining room

3.2 Some of the dining rooms were dedicated rooms. In one or two cases, these rooms were separate from the main buildings and occasionally they were linked to additional eating space. However, some of the dining areas were multi-purpose and so acted as an assembly hall or were used as a sixth form common room. In a number of cases, dining rooms were used as a thoroughfare at other times of the day.

3.3 Some schools suffered from a lack of space and cramped conditions. A lack of tables and chairs was reported in some schools. Such problems tended to be found in the schools where dining areas were multi-purpose or were central corridors for most of the day.

3.4 The size and shapes of tables and types of chairs varied across schools. However, some schools that have had recent refurbishments to the dining rooms has consulted with

pupils and introduced changes to make the dining room more comfortable, and in one or two cases, to appear more like a café or bistro

“They were involved right from the word go in the design, the tendering, and actually awarding of the contract. That is pupil power in action. It was great” (Head Teacher, secondary school).

3.5 One school had varied the types of seating within the dining room, providing oblong screened, circular and high tables in different areas of the room. In one of the special schools with a wider age range of pupils, some of the older pupils had to use furniture that was too small for them.

3.6 In a number of secondary schools, pupils operated “unofficial” seating arrangements, meaning that areas or specific tables were allocated by the pupils to specific year groups. In one school, the policy to segregate year groups had been official, but had been changed recently by the new Rector to enable pupils to mix more and for families to sit together. However, the pupils preferred to stick to the areas previously designated, which may have been in part due to a lack of awareness of the changes.

3.7 Generally, pupils bringing in packed lunches were not segregated from those taking school meals, though segregation did happen informally in a number of cases. One small primary school had separated the two groups due to a lack of space in the dining area. This change was also seen to have improved discipline and reduced noise.

3.8 The décor in the dining areas was generally colourful and bright. Many of the dining rooms had brightly coloured walls and furniture and one school had recently been redecorated, involving pupils in the choice of colour scheme. This had meant that the changes were well received and had increased the pupils’ satisfaction with the eating space as previously it had been in a poor state of decoration with peeling paint and a broken window. Despite the improvements, the head felt that there were still more improvements that could be made.

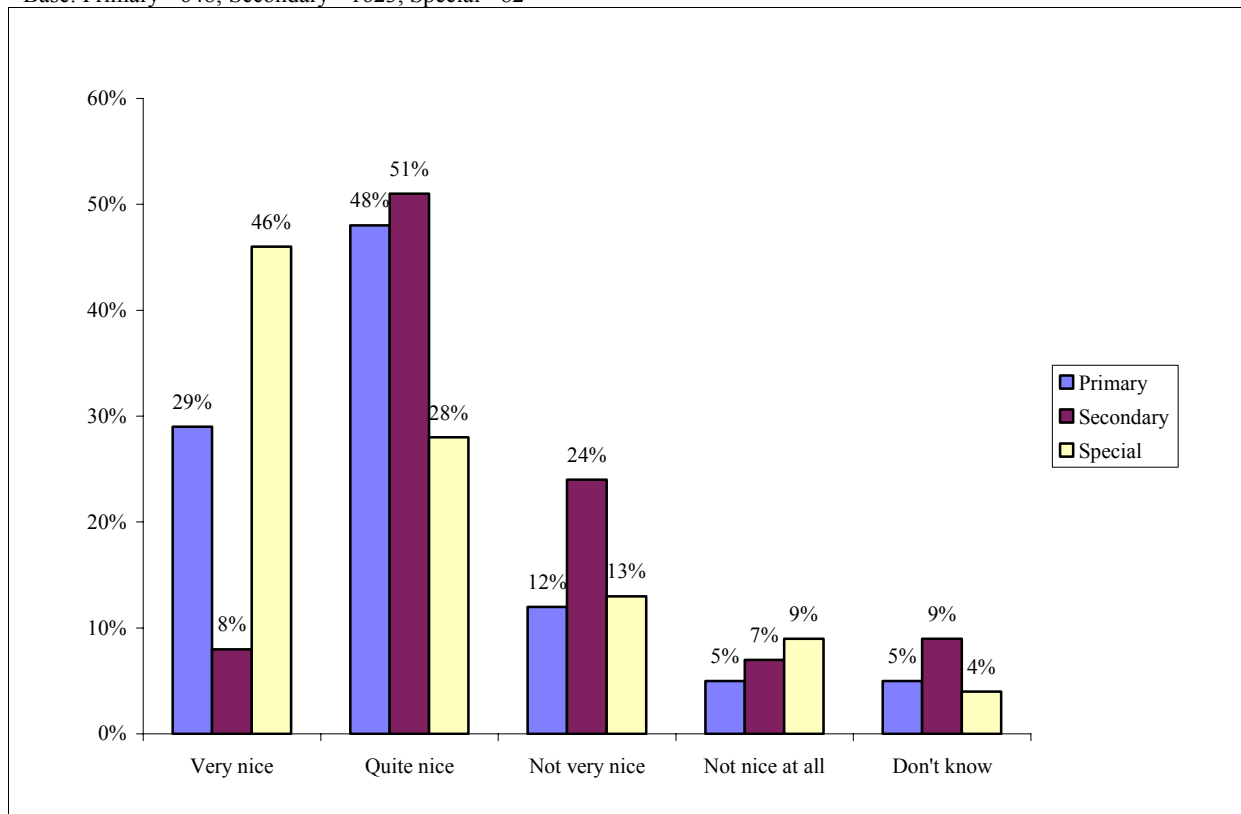
3.9 Posters were used in some case study schools to brighten the dining room, although there were other schools where no posters were in evidence, often where dining rooms had restricted wall space. Many of the posters were related to healthy eating; others were displayed on the subject of behaviour or food brand advertising. Many of the schools also included displays of the pupils’ work on the walls. For example, in one of the special schools, displays of pupils’ work; for example national poetry day poems about food, work on food groups and work on how the school promotes health, were pinned on the walls.

3.10 In the questionnaires, pupils were asked to rate the dining room as a place to eat (see Figure 3.1). Ratings were generally more positive in primary than secondary schools, as a significantly higher number of pupils in secondary than primary schools rated the school dining room as not a nice place to eat (31% compared to 17%). One secondary pupil when asked why they did not use the school canteen at lunchtime replied: “It doesn’t usually look appealing...I think if it looked better I would go”. This suggests that improving the dining rooms may encourage more pupils to use the school meals service.

3.11 It should be noted that the majority of pupils in all schools rated the dining room as a nice place to eat. These results may suggest that any changes made to dining rooms have been well received. However, it may also be that the different age groups have different expectations about what the dining room should look like, with secondary pupils comparing the dining room to other nearby outlets that they use at lunchtime.

Figure 3.1: What do you think of your school dining room as a place to eat in? (% of pupils)

Base: Primary - 648; Secondary - 1623, Special - 82



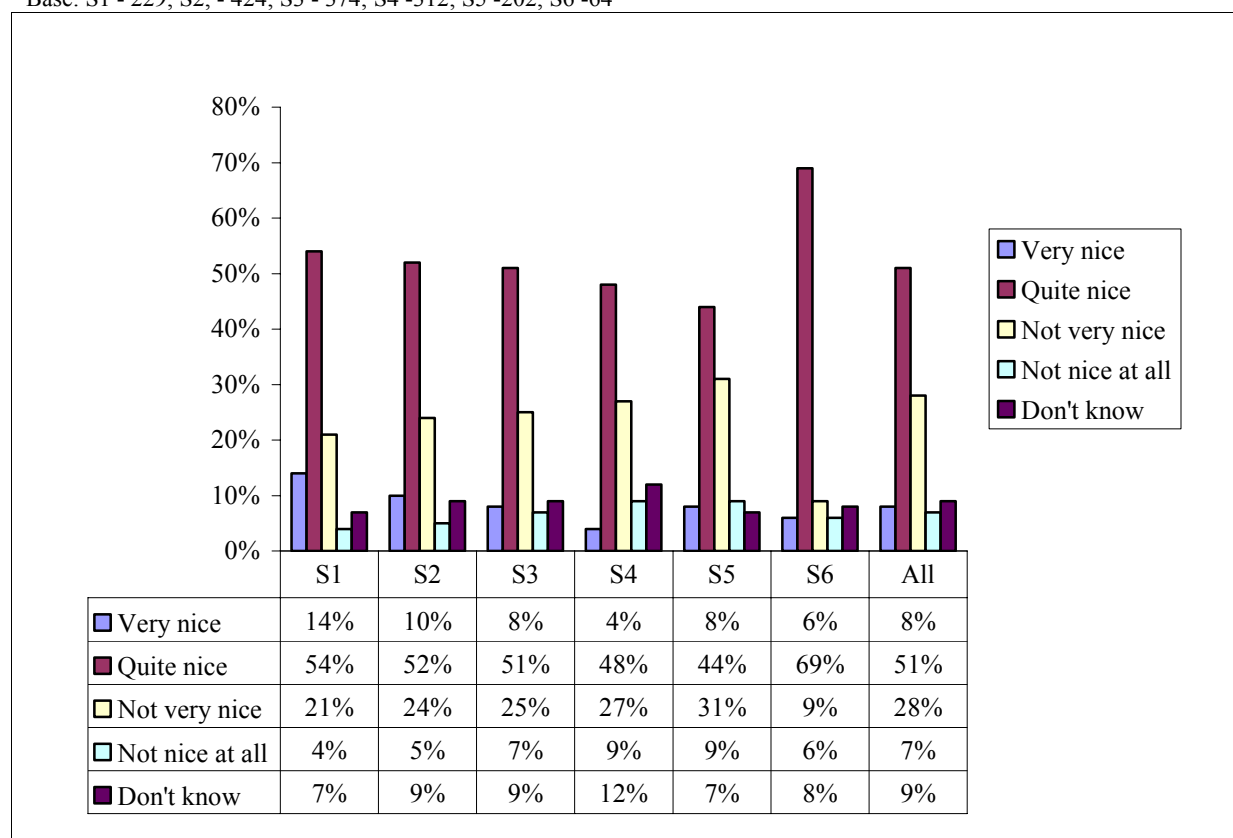
Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

3.12 Among secondary pupils, opinions towards the dining room appeared to worsen with age (see Figure 3.2). For example, 68% of pupils in S1 rate the dining room as a nice place to eat compared with 52% of S5 pupils.

Figure 3.2: What do you think of your school dining room as a place to eat in? (% of secondary pupils)

Base: S1 - 229; S2, - 424; S3 - 374; S4 -312; S5 -202, S6 -64



Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires – secondary schools

Lunchtime rules, procedures and queuing

3.13 As the size of the dining room and queuing could be an issue in some schools, they had put procedures in place to reduce queuing. In a number of primary schools, pupils in primary one tended to come to the dining room approximately 10 minutes before older pupils, so they could be served and seated before the others. Remaining pupils from different year groups entered the dining room in stages. This could be run on a rotation scheme so a certain year group was not always the last to be served. Pupils in the last year to be served complained about the lack of choice available to them. This was a particular problem where the rotation scheme was not in operation. The fact that primary schools usually had different sittings for different year groups helped to reduce queuing times, which in turn could help to improve behaviour in the dining hall. The majority of secondary schools had one single sitting, although some had introduced slightly staggered starts to lunchtime to enable younger pupils to queue for lunch before the older pupils.

3.14 Behaviour in the queues did vary from school to school. Positive behaviour was helped by good queue management systems including active supervision by staff and

prefects. In contrast, indiscipline in queues was associated with a complex interaction between larger numbers of pupils; longer waiting times; poor supervision; inadequate paying facilities and the fear of popular food items running out leading to limited choice:

“If you are not at the front of the queue you miss out on like half the things there” (pupil, secondary school).

3.15 A number of schools had introduced separate areas for different types of food (e.g. hot food, snack food, sandwiches and salad). For example, salad or deli bars and milk bars had been introduced in some schools. These bars created an additional service point as well as changing the look of the canteen, to appear more like a bistro or café. Cold food such as sandwiches, pre-packed salads portions, crisps, cakes and fruit were sometimes sold on a self-service basis. When this was done and managed well, it facilitated quicker service, which in turn helped foster positive behaviour. However, it should be noted that this did not always work well; sometimes queuing times were still a problem despite the existence of separate areas. In such cases, some pupils opted for cold food in order to spend less time over lunch.

3.16 Efficient queue management could have unexpected consequences. In one medium sized primary school, queues were managed very efficiently and the behaviour of pupils was good. Nonetheless, pupils did report frustration with the queuing system as it meant they had to make a decision between hot and cold food and join the appropriate queue before they had seen what choices were available.

3.17 Factors considered in the layout of food could at times also lead to undesired outcomes. For example, one smaller secondary school, where pupils perceived queuing times to be long, had moved chocolate and sweets next to the till due to a reported problem with pilfering. One consequence of this action, reported by older pupil, was that some pupils went straight to the till and buy chocolate rather than waiting in a long queue to buy more healthy choices:

“I canny be bothered to go there, to like push all the way over the other side so I just have a packet of sweets because they are beside the tills so wherever you go you can get sweets” (pupil, secondary school).

3.18 In one large secondary school, the Head Teacher used queuing as a form of time management and was reluctant to reduce queuing time as this increased the amount of unstructured time pupils had over the lunch break:

“.....if there is a very efficient flow through the dining room and the kids are out very very quickly that poses a whole series of other difficulties, principally what they will do with the remainder of the time.If you increase the flow to the extent that the pupils have a significant amount of time to fill at lunchtime one should not be surprised if they fill it doing things that you disapprove of” (Head Teacher, secondary school).

3.19 The Head Teacher in this school actively promoted positive behaviour and queues were supervised by members of the senior management team, supplemented by sixth year pupils on a rota basis. At the same time, researchers observed that the queues were sometimes boisterous and pupils reported some problems with jostling and spilt food in the congested payment queue.

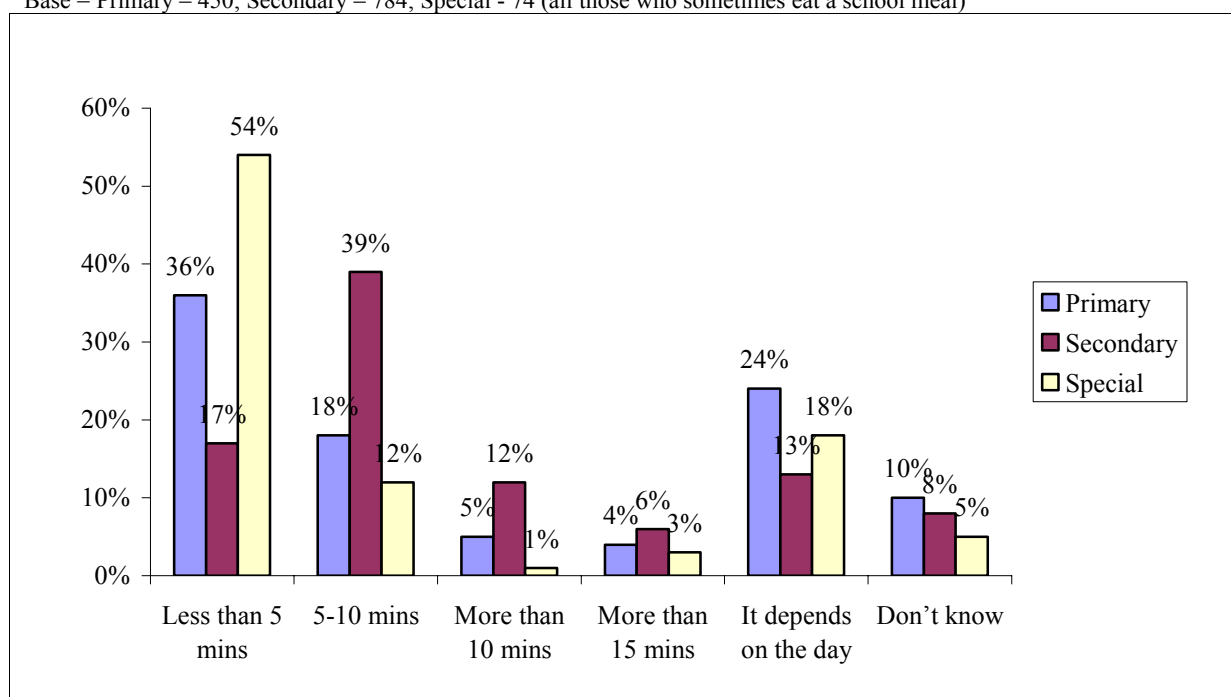
Queuing times

3.20 Pupils' responses to questions in the questionnaires about queuing suggested that queuing times were generally acceptable across all of the case study schools. Pupils who at least sometimes had a school meal were asked how long they had to queue for the lunch (see Figure 3.3). Reported queuing times were shortest in special schools, with just over a half of pupils being served within 5 minutes. Perhaps, expectedly, due to the larger school rolls in secondary schools, reported queuing times were longer than those in primary schools. However, over half the pupils in both primary and secondary schools said they were generally served within 10 minutes. It should be noted that a significant proportion of pupils (24% of primary and 13% of secondary pupils) said that queuing times varied day to day.

3.21 Perceptions of queuing times varied among the different year groups within primary and secondary schools, with older pupils in both having reporting shorter queuing times than younger pupils. For example, primary seven pupils reported shorter times than the younger pupils, with 53% saying they were served within five minutes (compared with 22% of primary five pupils and 30% of primary six pupils). In secondary schools, 34% of S6 pupils said they queued for less than five minutes compared with 16% of pupils in S1.

Figure 3.3: How long do you usually have to queue for your school meal? (% pupils)

Base = Primary – 450; Secondary – 784; Special - 74 (all those who sometimes eat a school meal)



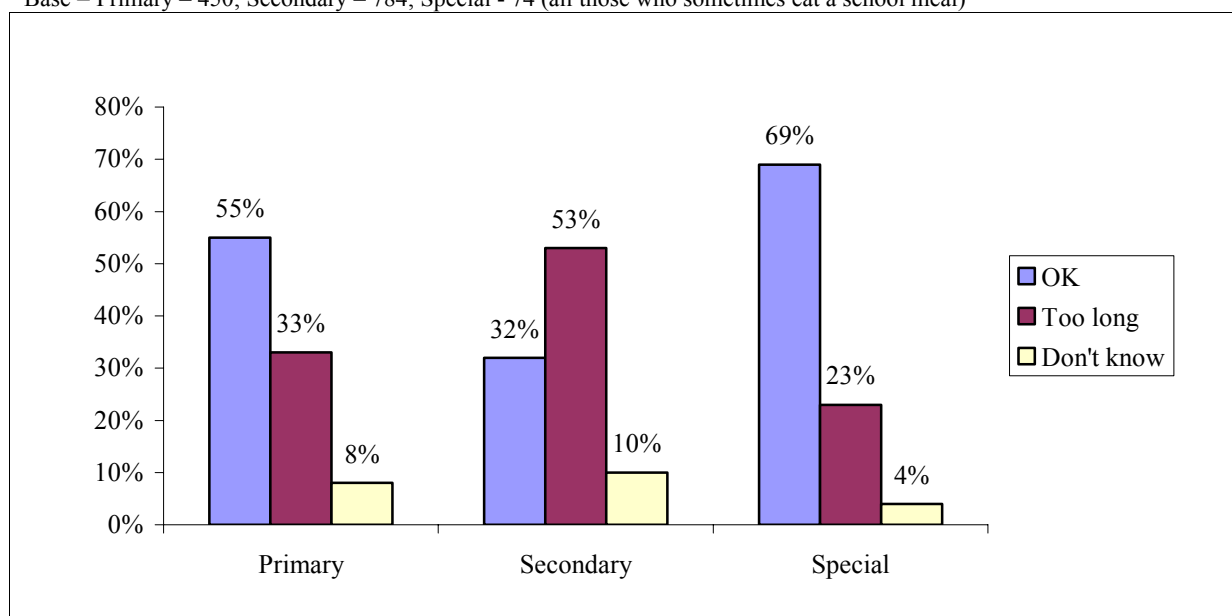
Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

3.22 Pupils were also asked whether they considered the queuing times to be acceptable (Figure 3.4). Given the fact that reported queuing times in secondary schools were longer than those in primary schools, it is perhaps not surprising that satisfaction with queuing times was lower in secondary schools. That is, 53% of secondary school pupils felt that the queues were too long, as opposed to 33% of primary school pupils. Within secondary schools, pupils in S4 were most unhappy with queues, with 66% feeling that the queues were too long. In primary schools, just under half of primary 5 and primary 6 pupils felt the queues were ‘OK’ (46% and 47% respectively) compared with 67% of primary 7 pupils.

Figure 3.4: Do you think the time you spend queuing for lunch is OK or too long? (% of pupils)

Base = Primary – 450; Secondary – 784; Special - 74 (all those who sometimes eat a school meal)



Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

3.23 It could be argued that pupils' perceptions of whether queuing times in the dining hall are too long is a more important factor than actual queuing times, as it could be these perceptions that contribute to discouraging pupils from taking school meals. For example, some pupils seemed to prefer having a packed lunch or going outside for lunch rather than having a school meal as this meant they had to spend less time queuing:

“The shops are a lot quicker. The canteen staff, and there is quite a few of them, but they're still not as quick as the shop owners” (pupil secondary school).

Lunchtime as a social occasion

3.24 Researchers generally found the atmosphere in the dining rooms to be sociable in all schools once pupils were seated, although there were frustrations evident where space was restricted and when pupils were queuing and moving about. In schools where there was one lunch sitting and where space permitted, pupils were generally not rushed and were able to stay in the dining area to socialise after they had finished eating. In contrast, where a rota system was in operation due to limited space in the dining room, on some occasions pupils

were unable to sit together and were encouraged to leave the dining room as soon as they had finished their meal. This appeared to be a more common situation in primary than secondary schools.

3.25 Most dining areas were noisy and in the qualitative interviews this was something that pupils frequently complained about. One secondary school had two TV screens in the dining room, which showed music channels. In another large secondary, there were TV screens in the dining area although these were not in use. This school also played music in the sixth form area that also doubled as one of four dining halls. Some pupils seemed keen on having music in the dining room, and suggested this as an improvement, while others agreed it might be a good idea when prompted. However, a number of pupils were more cautious about this idea, as they were conscious of the cost, wanted the music to be calm and not too loud, and suggested it could lead to arguments about what music should be played:

“If they had a CD player then some people wouldn't like the music anyway”
(pupil, secondary school).

3.26 Whether staff and classroom assistants ate with pupils in the dining room varied from school to school. In some secondary schools, the teachers ate in the dining hall but at a separate “teachers’ table”. In another secondary school, there was hatch connecting the kitchen and the staff room, so staff were served through the hatch but ate in the staff room. In primary schools, teachers and classroom assistants on supervisory duty ate at tables with the children while other staff ate in the staff room. In general, where staff members were present it was more in a supervisory than a ‘social’ role.

3.27 In many schools, pupils indicated that the catering staff were “really nice”, “friendly” and “smiley” and our observations were that most catering staff, although busy, were pleasant and patient with pupils and knew many by name. However, in one or two schools, pupils complained that catering staff were unsociable, or even “grumpy”. Some pupils felt this was because they were very busy and did not have time to talk, but all who reported this felt it made the dining area feel less sociable.

School meal uptake

3.28 As discussed in Section B, uptake of school meals in schools varied in most cases between around a third and a half of pupils, with the vast majority of the remaining pupils eating a packed lunch. In the questionnaire, pupils were asked what type of lunch they had on school days. This question allowed for multi-response. The results are displayed in Figure 3.5.

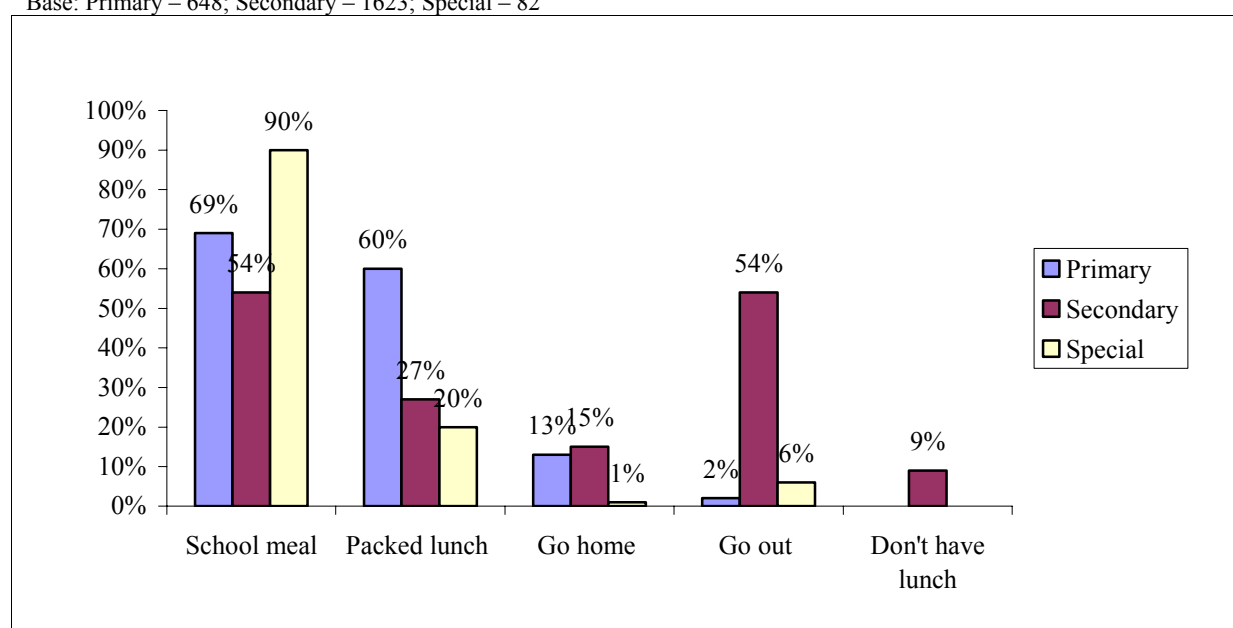
3.29 The majority of pupils in all schools took a school meal on some days. In primary schools pupils were principally eating school meals (69%) or packed lunches (60%), although around one in eight (13%) reported going home at least on occasion. The main types of lunch taken by secondary school pupils were school lunches or lunches bought externally (both types reported by 54% of pupils). In addition, over a quarter (27%) ate packed lunches and one in seven (15%) went home. Most (90%) of the pupils completing the questionnaire in the two case study special schools ate school meals. Fewer reported alternative school meal types, though one in five (20%) brought in packed lunches.

3.30 In the primary cases study schools, the early implementation of the recommendations in primary schools does not appear to have discouraged the majority of pupils from taking school meals although 31% of primary pupils completing questionnaires reported that they never ate school meals. It is not possible within the parameters of the research to assess whether this figure has increased or decreased since the implementation of recommendations of *Hungry for Success*.

3.31 There were some stage differences in terms of what type of lunch primary pupils had. More primary 7 pupils (78%) than primary 5 (67%) or primary 6 (63%) pupils had a school meal; these pupils were less likely to have a packed lunch than primary 6 pupils (54% compared with 66%). It was more common for females than males to bring a packed lunch to primary school (66% compared with 55%).

Figure 3.5: On school days, what type of lunch do you have? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82



Source: case study school pupils' attitudinal questionnaires

3.32 Across secondary case study schools, 46% of pupils completing the questionnaire reported never eating a school meal. These results highlight the potential importance of the gradual approach of introducing changes to secondary school menus suggested by many schools, in order to ensure there is no significant decrease in school meal uptake. Given the fact that 54% of secondary pupils went out of school for lunch on some days also highlights the fact that secondary pupils are not so much of a captive audience as primary school pupils. Just under a tenth of secondary pupils (9%) said they did not have a lunch.

3.33 There were gender differences in terms of what type of lunch secondary pupils had. Significantly more females than males had school meals on some days (60% compared with 43%) whereas males were more likely than females to go out at lunchtime on some days (58% compared with 51%).

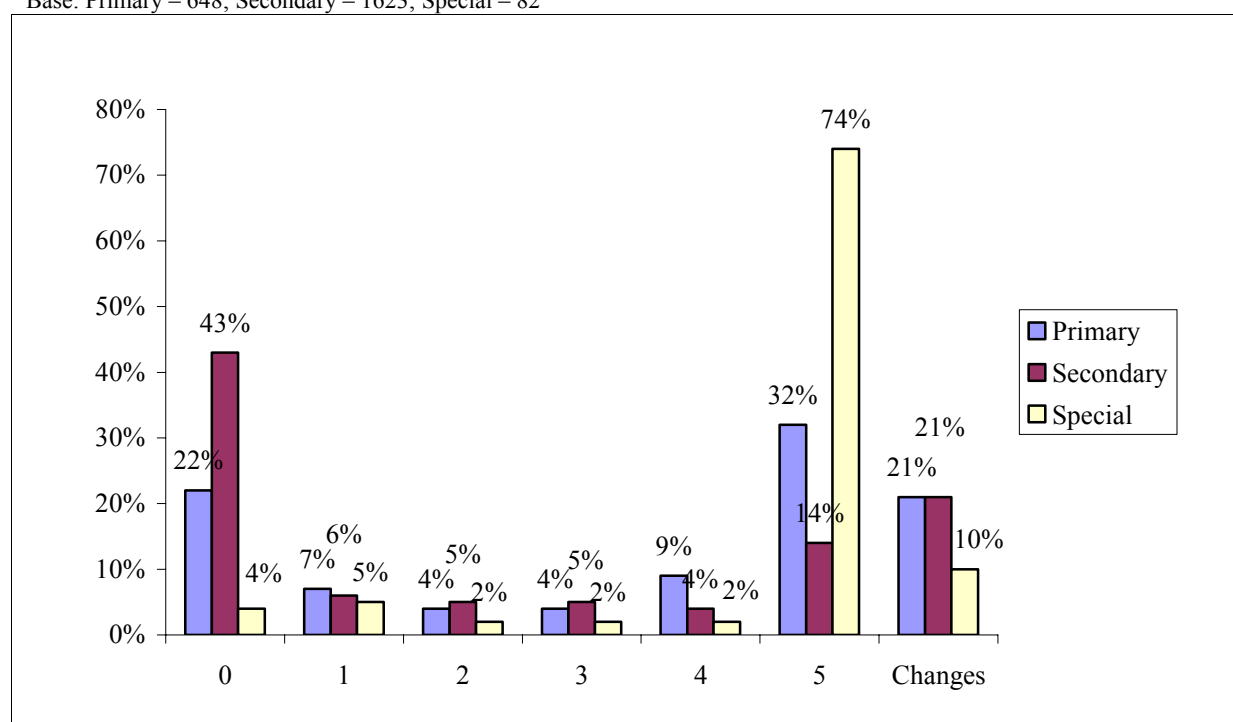
3.34 In terms of age differences, it was more common for younger than older pupils to go for school meals (apart from S6 pupils). For example, 65% of S1 pupils sometimes had school meals as opposed to 43% of S5 pupils. However, this figure did rise among S6 pupils,

with 59% of these pupils eating school meals some days. Younger pupils were also more likely to go out for lunch (67% of S1 pupils compared with 30% of S6 pupils). It appears that younger pupils vary what they do for their lunch every day to a greater extent than older pupils.

3.35 These results indicated the proportion of pupils *sometimes* taking school meals or making some other lunchtime choice. In order to explore the picture of school meal uptake further, pupils were also asked how many days a week they *usually* had a school lunch (see Figure 3.6).

Figure 3.6: How many days do you usually eat a school meal for lunch each week? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82



Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

3.36 The answers to this question differed from the results of the previous question in terms of the pupils who never ate school meals. For example, Figure 3.6 suggests that 22% of primary and 43% of secondary pupils never ate school meals (previously 31% of primary and 46% of secondary pupils). However, although the figures do vary between the two questions, the broad pattern of results is comparable, in that the proportion of pupils who never took school meals was highest in secondary schools, followed by primary schools, and then special schools.

3.37 The results also indicate that around a third of case study primary pupils (32%) ate school meals five times a week compared with 14% of secondary pupils and 74% of special school pupils. Once again this demonstrates a very high level of school meal uptake in special schools. Just over one in five (21%) primary and secondary pupils indicated that the number of times they took school meals changed from week to week.

Decisions on lunchtime choices

3.38 A number of factors influenced the choice of whether pupils would go out of school to eat or would eat at school, and whether to eat school meals or packed lunches. Some pupils made this decision on a daily basis.

3.39 Often pupils in primary schools and special schools were not permitted to leave the school grounds at lunchtime. Where this was allowed, it was only the older pupils who were given the privilege. The picture was more varied in secondary schools. In some cases, all secondary pupils were allowed out at lunchtime and in others it was only the older pupils. Where schools did have rules on who could leave the school grounds, it did not appear to be the case that they were always rigorously enforced:

“I think in some ways the school will still be saying ‘don’t go out of the school grounds’ but they’ve never enforced it. I think the reason for that is because they know they can’t handle the amount of people that would be there at lunchtime if everybody did” (pupil, secondary school).

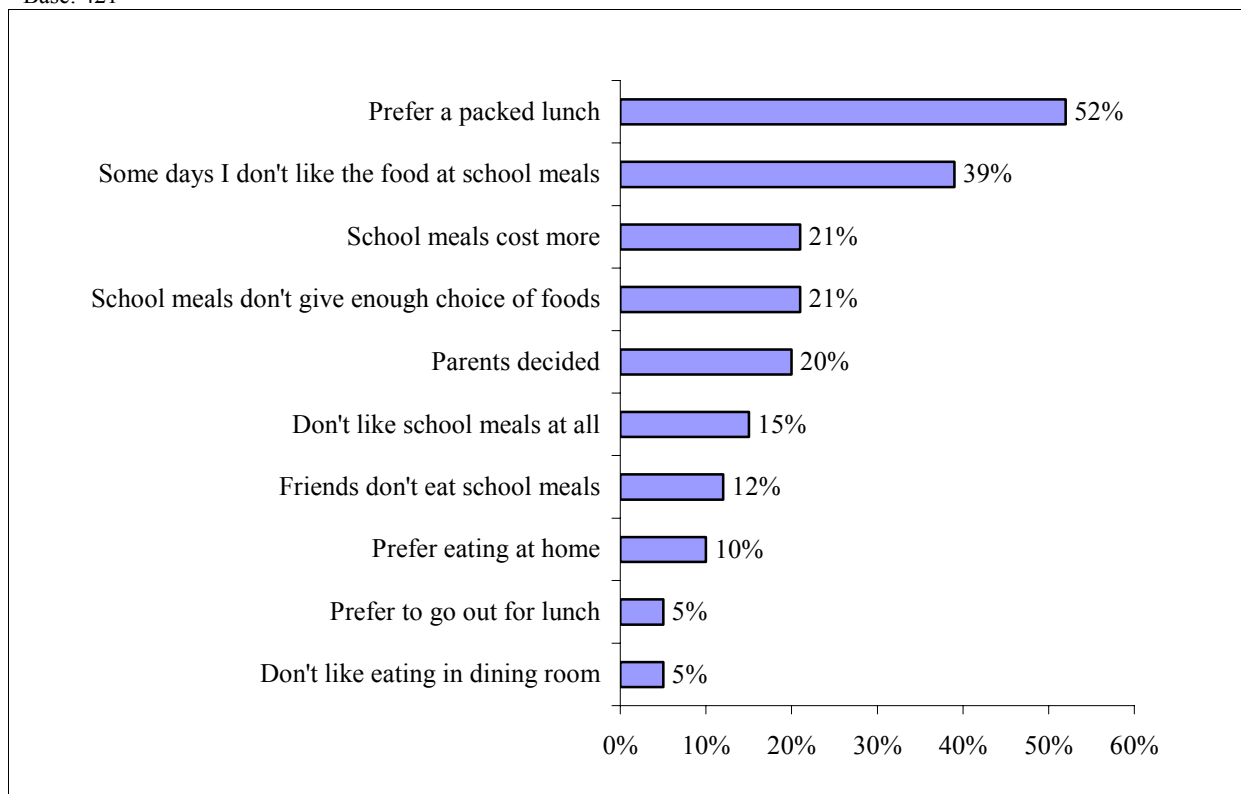
3.40 Additionally, one school’s younger pupils found other ways of ‘getting round the rules’ to obtain alternative food options, such as asking older pupils to purchase food for them.

3.41 Pupils who sought alternative provision outside the school often bought from either ice cream or snack vans outside the schools, local cafes and shops and carry out shops. Thus, many of the food options bought outside of school were unhealthy; chips, burgers and pizzas were popular options. Pupils also bought confectionery, crisps and fizzy drinks.

3.42 In the questionnaire, pupils who decided on at least some days to bring a packed lunch, to go outside, or to go home for lunch were asked why this was the case. The reasons given by primary pupils are displayed in Figure 3.7. The main reason was that pupils simply preferred having a packed lunch (52%), although 39% of pupils said that on some days, they do not like the food available as school meals. The fact that 21% of pupils thought that school meals cost more than other options, and that school meals don't give enough choice of foods, may not be very encouraging. It will be interesting to revisit this result when recommendations have become more embedded, to determine if pupil opinion has changed over time.

Figure 3.7: Why do you have a packed lunch or eat at home instead of a school meal? (% primary pupils)

Base: 421

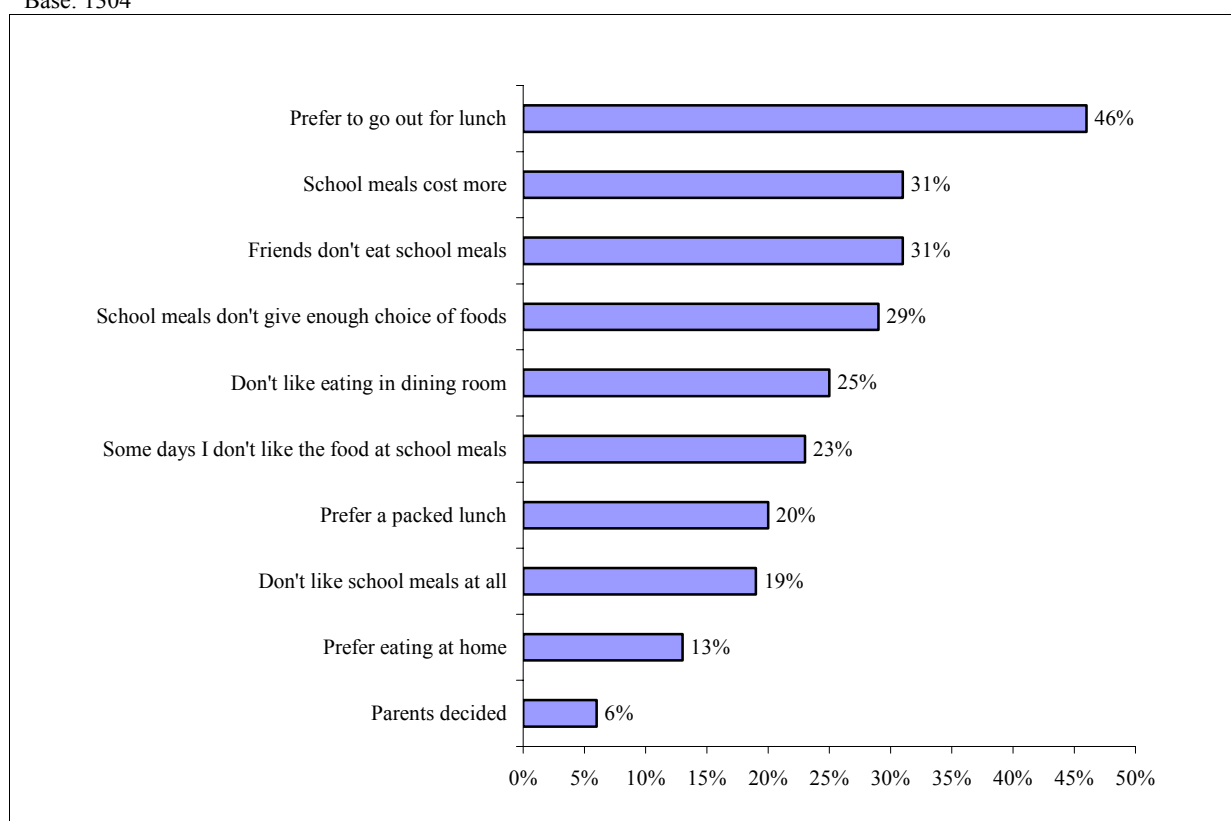


Source: case study school pupils' attitudinal questionnaires – primary schools

3.43 The results for secondary pupils are displayed in Figure 3.8. The most common reasons for not eating school meals were that pupils preferred to go out for lunch (46%) or their friends were not eating school meals (31%). However, one worrying finding was that 31% of pupils made other arrangements at lunchtime as they felt the school meals cost more. Pupils also mentioned that they did not feel that the school meals service provided enough choice of foods (29%) or that they did not like to eat in the dining room (23%). It is possible that these reasons could become less common when the recommendations have been implemented in secondary schools, such as improving and refurbishing the dining rooms to allow lunchtime to be more of a social experience, and providing more choices on the menus.

Figure 3.8: Why do you have a packed lunch or eat at home instead of a school meal? (% secondary pupils)

Base: 1304



Source: case study school pupils' attitudinal questionnaires – secondary schools

3.44 The qualitative research confirmed that reasons for seeking provision outside the school varied. Some pupils reported that the school meals were too expensive and it was cheaper to eat outside the school. Others reported comparable prices, but said that portion sizes from external outlets tended to be larger and so in their view produced better value for money. For example, pupils in one secondary school, where the portion size for chips had been reduced, opted for a nearby chip shop which sold bigger portions. There were some complaints from secondary pupils about the portion sizes: *"Prisoners get more than we get for lunch"* (pupil, secondary school). However, in some cases at least, catering staff reported that pupils did not eat all elements of the meal provided, which meant that the intended size of meal as a whole was reduced.

3.45 Other reasons pupils reported for not taking school meals, included the fact that they liked to leave the school at lunchtime, and to eat their lunch in an unsupervised atmosphere.

Some other pupils simply said that they did not like school meals and preferred the food available outside the school:

“Most people go out for lunch to the chippie or to the bakery because school meals are not great” (pupil, secondary school).

3.46 The qualitative research suggested that decisions about lunchtime choices were often taken on a daily basis. Taken together with the results in the previous section, it is clear that the number of pupils eating school meals each day was not always predictable. The qualitative research confirmed there were a number of influences on lunchtime choice, including:

- the choice of school meals on offer that day
- the weather, with more pupils staying in school during poor weather
- parents, who provided packed lunches on some days and money for school meals at other times
- peer pressure from friends

3.47 Few parents appeared to be using menus sent to them to help pupils make informed choices in advance:

“I have made menus available for parents but they are not taking it really on board” (Head Teacher, primary school).

CHAPTER FOUR WHAT PUPILS EAT

4.1 This chapter summarises findings from the baseline research on what pupils eat including:

- details of the menus offered by the school meals service
- findings on portions sizes
- the types of foods pupils appeared to choose
- teachers' and pupils' views on school meals

4.2 Relevant recommendations from *Hungry for Success* include:

Recommendation 2: *Each education authority should develop a policy for delivering, in partnership with parents and carers, medically prescribed diets and appropriate provision for children with SENs*

Recommendation 3: *The Scottish Nutrient Standards for school lunches should be adopted and education authorities and schools should have them in place in all special schools and primary schools by December 2004 and in all secondary schools by December 2006*

What does the school meals service offer?

4.3 The case study schools varied in the amount of food that was prepared on site and the amount of pre-prepared ingredients used in hot meals. Whether meals were prepared on-site generally depended on the size and location of the school. Some schools served as output kitchens and were preparing meals for other schools, nurseries and the meals on wheels service. This obviously affected the workload of the catering staff.

4.4 The level of involvement that local authorities had in the preparation of menus, and hence the amount of freedom that head cooks had to determine the menu varied between authority areas. In some cases local education authorities provided a four week menu, with specific recipes for each dish that had, on occasion, been nutritionally analysed. However, even when these menus and recipes were provided, it did not always appear to be the case that the catering staff followed these rigidly. In one school, the cook prepared menus for approval by the local authority.

4.5 One education authority provided a list of items that should be available daily, rather than provide menus. The head cook in a small secondary school within that area appeared to undertake no forward planning. Instead the decision on what hot meal to prepare was only taken the day before serving. This obviously would mean that pupils were unaware of specific menus in advance, and so could not make decisions on whether to go for school meals based on this knowledge.

4.6 Pupils were given a choice of a wide range of hot and cold foods. In broad terms, greater choice was available in secondary rather than primary schools, and in larger rather than smaller schools. In most cases, pupils had at least a choice of a hot meat and a vegetarian option which were usually served with potatoes and one or two portions of vegetables. Alternatives to potato were provided through pasta and rice dishes, though these

were not available every day in all schools. Snack options such as burgers, pizzas and hot dogs were usually available in secondary schools, while healthier snack options such as baked potatoes were also available. Soup was served variously as a main course option (with sandwich); as an alternative to a pudding; as a starter; or as a stand-alone item. Salads were in evidence in a number of schools, either as an alternative to a vegetable portion or as a snack item. Basic sandwiches were on sale, with the choice being extended by offering variations. For example, in some schools, wraps, baguettes, paninis and toasties were available. Crisps were available in many schools.

4.7 The range of home baking and hot and cold desserts had been reduced in some primary schools, but was still available in most secondary schools where cakes and biscuits were often also served. The desserts sometimes, but not always, included fruit. Yogurt and fresh fruit were usually offered either as an alternative or an always available choice. The extent to which fizzy drinks were available varied. Generally, they were not available or at least discouraged in primary schools. In some secondary schools, they had not been restricted in any way and so were sold at the canteen and in vending machines. In other secondary schools, fizzy drinks had been removed from the dining room but were still sold through vending machines, and in others, they were not sold at all. Alternative drinks options included plain water, flavoured water, plain milk, flavoured milk, bottled fruit juices and sometimes diluted juice.

Menu planning by food group

4.8 The *Hungry for Success* report provides guidance on menu planning by food group. This guidance was included “as basic guidance for catering practice” and it was noted that “what is essential” is the achievement of the more detailed nutrient standards¹. Table 7 (for primary and special Schools)² and Table 8 (for secondary schools) in Annex 3 reproduce the table on menu planning by food group included in the *Hungry for Success* report. The tables compare provision at the time of the baseline research with the recommendations. This comparison is not intended to be a final ‘critical assessment’ of school meals in each sector, but to show how current provision relates to the *Hungry for Success* guidance so that future progress can easily be measured in the case study schools. We have commented on only those aspects of the guidance that could be easily assessed by reviewing the menus, by the researchers’ observations or via comments from staff. Where the guidance relates to more detailed nutritional analysis of ingredients or products, we have not been able to comment.

4.9 The guidance covers the five food groups (Group 1: bread, cereals and potatoes; Group 2: fruits and vegetables; Group 3: milk and milk products; Group 4: meat, fish and alternatives; Group 5: foods containing fat and foods containing sugar). Progress within each group is summarised below.

¹ HfS Table 1, para 3.7 and table on pp 32-46

² Findings for primary and special schools have been shown together because they both had an implementation deadline of December 2004.

Group 1: bread, cereal and potatoes

4.10 In general, primary case study schools were already following the guidance on foods in this group. Bread and pasta were served sufficiently often, and chips and other fried potato dishes were served the recommended maximum of twice a week. Different types of bread and different ways of cooking potatoes provided variety. However, in some primaries, there was not always a non-fried alternative when fried potato dishes were served. Similarly, while brown and wholemeal bread were available at times in most schools, they were rarely available at all times.

4.11 The main difference in the secondary schools was that chips were served more often. Several schools had introduced some ‘chip free days’ and had reduced the size of a portion of chips. Nonetheless, most schools served chips more than the recommended maximum of twice a week, and several served chips every day.

4.12 Secondary schools were serving bread daily (though wholemeal was not always available). Pasta and rice were offered a minimum of once a week, and more often in many cases.

Group 2: fruits and vegetables

4.13 Overall, case study schools were offering fruit and vegetables sufficiently *often*, although it might be possible to increase uptake by serving these in a more attractive way. Salad vegetables and cold vegetables were often served in an appealing and easy to eat way (e.g. cut into sticks and packaged in little tubs or packets). In general, there was less evidence of hot vegetables being served in ways designed to appeal to pupils. Similarly, while most schools offered a choice of fresh fruit every day, whole fruit displayed in baskets tended to be much less popular than prepared fruit served in packets and tubs.

4.14 Soup is recommended as a means of increasing vegetable consumption. Schools that served soup did tend to offer vegetable based soups, but several (particularly secondary) schools did not offer soup very often.

Group 3: milk and milk products

4.15 As recommended, most schools were offering semi-skimmed milk every day and yogurt was also served daily in most schools. Where flavoured milk was offered alongside plain milk, this tended to be more popular. In light of the “desirability to gradually wean Scottish children away from a predilection for sweet flavours”³, pupils could perhaps be given more encouragement to drink plain milk.

4.16 The guidelines state that “cheese should be served as the main protein item instead of meat or fish a maximum of twice a week” and all schools followed this guidance. However, in most schools, there was the *option* to have cheese as the main protein item (e.g. in pasta, in a sandwich, or as a baked potato filling) more than three times a week. Indeed, in many schools it would be possible to choose a cheese item daily.

³ HfS p44 – noted in the section on sweetened soft drinks (Group 5 foods)

4.17 In several schools, vegetarian alternatives to cheese were offered less often than the recommended minimum of three times a week.

Group 4: meat, fish and alternatives

4.18 As recommended, all schools offered portions of food from this group every day and served red meat at least twice a week. However, some primaries served processed meat more often than the recommended maximum of once a week, and most secondary schools offered processed meat products every day.

4.19 Most primary schools did serve fish the minimum amount of once a week – but rarely more often. Many secondary schools also served fish once a week although a number served it less often. In both the primary and secondary sector, there was more difficulty in meeting the recommendation that oily fish should be served once a week. One primary school had tried to overcome this problem by serving salmon mayonnaise as a filling for baked potatoes or sandwiches, however, this option had not proved to be particularly popular. Catering staff felt that this option was more suited to an adult's than a child's palate, and felt frustrated at the waste involved in offering this filling:

"..the sandwich fillings are more for an adult than a child...today it is salmon mayonnaise. We have got 300 (pupils having a school meal) in here and I have made 7 because they will not take it...they won't touch the salmon. You stand and make that up and you know it is going to go in the bin – it seems a waste of money" (head cook, primary school).

Several case study schools had tried other dishes, but found that they were unpopular and so most schools did not serve any oily fish.

Group 5: foods containing fat and foods containing sugar

4.20 In general, most primary schools were adhering to the guidelines on this food group: they were not serving fizzy drinks or manufactured confectionery; they had reduced the fat and sugar content of home baking and had provided fruit and/or milk-based desserts. Many had also stopped offering crisps or offered them less often.

4.21 Secondary case study schools were not as far forward in terms of implementing this recommendation. In some cases, manufactured confectionery was still sold in tuck shops or vending machines and occasionally in the dining room itself. Several were still serving fizzy drinks, confectionery and crisps. It should be noted that selling these items in tuck shops often generate income for schools to fund school trips etc, and so many schools were wary of removing them.

4.22 In both primary and secondary sectors, flavoured versions of milk and water were often very popular and there was little evidence of pupils being encouraged to choose the plain version (perhaps because staff felt that flavoured milk or water was a better option than a fizzy drink).

Portion size

4.23 Portion sizes of sample school meals were weighed during the fieldwork period and the results are shown in the individual school reports. Where possible, these were compared with the portion sizes recommended in *Hungry for Success*. However, for many of the main dishes, accurate comparison with recommended weights was not possible since the recommendations relate to recommended meat, vegetable or sauce content, rather than the whole dish, and it was not possible to separate out the ingredients for weighing in this way.

4.24 Although cooks were given guidelines on portion sizes, in reality portions varied for a number of reasons, often linked to custom and practice. In some schools for example, cooks tended to give older pupils larger and younger ones smaller portions:

“I find is the bigger ones are more hungrier and the portion size is maybe not just, you're talking about 17 and 18 year olds. If they could maybe be more flexible in their portion size” (head cook, secondary school).

4.25 Occasionally, if a pupil was insistent that they did not want all the constituents of a meal, they might be given a larger portion of what they *would* eat (e.g. if the main meal was chicken curry, rice and peas and a pupil refused rice and peas, they might be given a larger portion of curry). It was often commented that giving pupils the recommended portion size of vegetables would discourage them from eating any vegetables, and so staff provided smaller portions so not to “scare pupils away”. In some schools, varying portions was seen in a positive light as it meant that those who, in catering staff’s opinion, were not eating enough at home could be discreetly given more.

4.26 When portions of individual items were weighed and compared to the recommendations in *Hungry for Success*, there was variation across schools in how closely they matched recommendations. Rather than consistently giving portion of all foods higher or lower than recommended portion size, this varied within schools. In very broad terms, portions of vegetables were lower than recommended and portions of meat based dishes were higher. However this was by no means universal.

Special diets

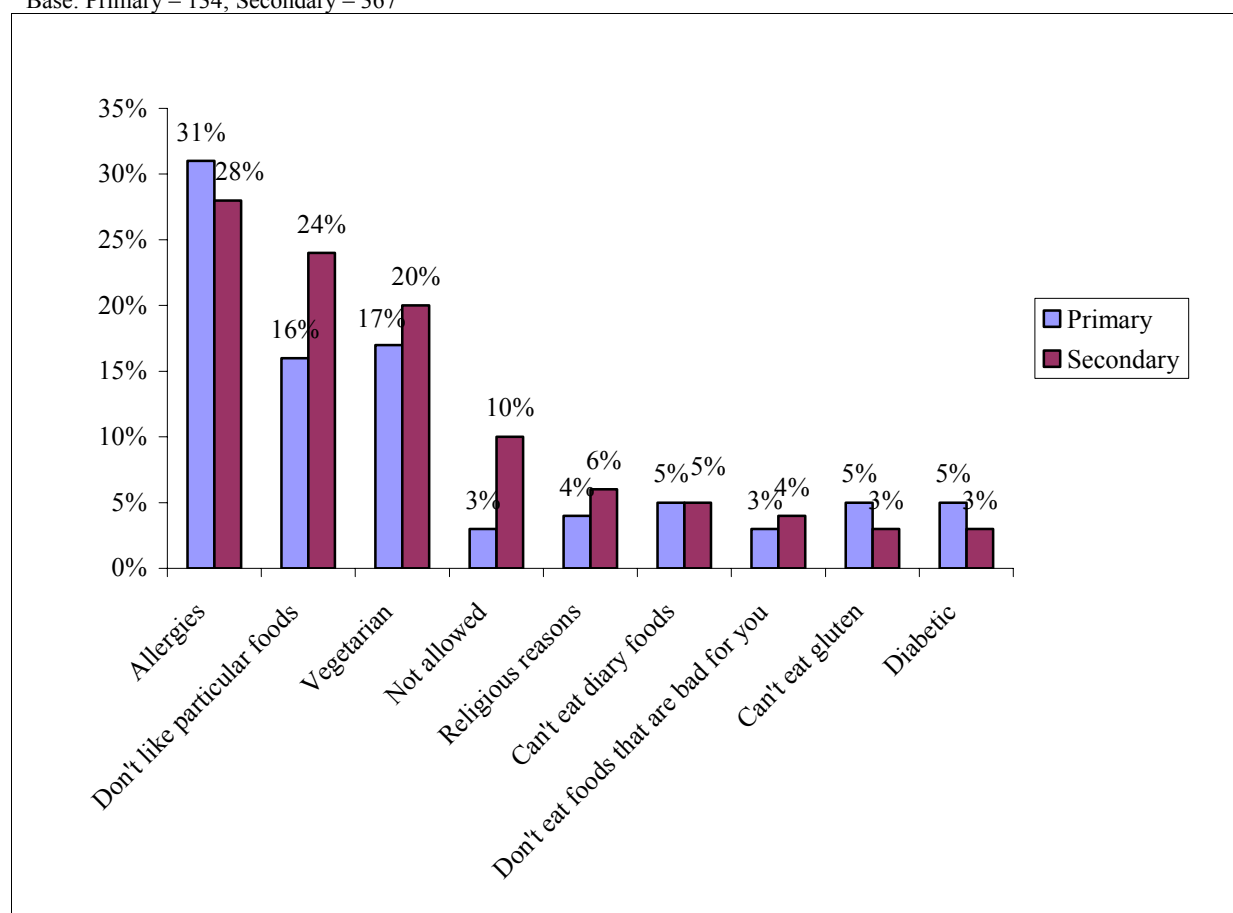
4.27 In the questionnaires, pupils in the case study schools were asked if they had any special dietary requirements and the reasons why they did not eat particular foods. Just over a tenth (11%, n = 9) of special school pupils reported having special dietary requirements. However, due to the small number involved, these requirements will not be discussed in any more detail.

4.28 The results for primary and secondary school pupils in the case study schools are displayed in Figure 4.1. Around a fifth of pupils in primary and secondary schools said they had special dietary requirements (21% and 23% respectively). However, as can be seen from Figure 4.1, 24% of secondary and 16% of primary pupils defined having a dietary requirement as simply not liking some particular foods. This would suggest that the actual proportion of pupils who have dietary requirements is lower than the claimed figure, a finding borne out by the information provided by the individual schools. Just under a third of pupils who said they had special dietary requirements reported having allergies (31% of

primary and 28% of secondary pupils) and around a fifth were vegetarians (17% of primary and 20% of secondary pupils).

Figure 4.1: Reasons why pupils do not eat some foods? (% pupils)

Base: Primary – 134; Secondary – 367



Percentages do not all add up to 100 - no reasons not shown

Source: case study school pupils' attitudinal questionnaires

4.29 There were some gender differences among secondary school pupils, with 27% of females compared with 17% of males reporting that they had special dietary requirements. In terms of specific reasons, more females than males were vegetarian (25% compared with 12%) although more males than females did not eat particular foods for religious reasons (12% compared with 3%). In primary schools, although there was no overall gender difference, more males than females had allergies to particular foods (35% compared with 27%).

4.30 Particularly in smaller schools, where less choice could be provided than in the larger schools, cooks were flexible in offering alternatives to menu items to accommodate special dietary needs. In one school, the cook had noticed that her local butcher was now offering gluten-free sausages. She planned to ask the catering manager whether the butcher could be added to the list of approved suppliers so that she could purchase sausages for a particular pupil with gluten intolerance. In one special school that prepared its own meals, where intolerance to particular foods and special dietary needs were relatively common, dining room staff showed great flexibility in providing food tailored to individual needs.

Pupils' lunchtime choices

4.31 Given the choice, pupils more often chose snack items and cold options rather than hot cooked meals. The qualitative interviews suggested that this was because pupils found these options to be tastier and quicker (to purchase and to eat):

"The only problem with it is the tills cause if you actually want to get hot food there's only one till so there's a massive queue. A lot of the time you just go and get pizza and chips cause it's quicker. Trying to get healthy food is not working" (pupil, secondary school).

4.32 Pupils also said that they wanted a light meal and they knew exactly what was included in the snack or cold options. Some popular cooked meals included tuna pasta, some chicken dishes such as chicken curry, and macaroni cheese. However, in primary schools, many of these dishes were more popular before the changes to the recipes, with many pupils preferring the previous recipes which may have included salt and artificial flavourings:

"..one thing that's changed...the spaghetti bolognese. It's minging now...they put this herb stuff on it and see when you eat it, you can nearly be sick!" (pupil, primary school).

"I would like the curry to go back to its old way...I want the spaghetti to go back to its old way as well" (pupil, primary school).

4.33 Catering staff reported difficulties with encouraging children to eat vegetables. Not many vegetables were popular, although sweet corn was mentioned as one popular vegetable. An additional problem was strong peer pressure preventing children from taking vegetables. Often salad portions, such as beetroot and coleslaw, were eaten in preference to hot vegetables. Soup was popular in primary schools, but as mentioned previously, not so popular in secondary schools.

4.34 In the questionnaire, pupils in case study schools were asked if the school meals service provided enough choice on a daily basis (see Figure 4.2). Only around a quarter of pupils in primary (25%) and secondary (28%) schools felt that this was the case, whereas around a fifth of primary and secondary pupils felt there was not enough choice (22% and 21% respectively). Although 45% of pupils in special schools felt there was enough choice, a similar proportion to pupils in other schools felt there was not enough choice (21%). Additionally, 38% of primary pupils, 27% of secondary pupils, and 31% of special pupils felt there was sometimes enough choice.

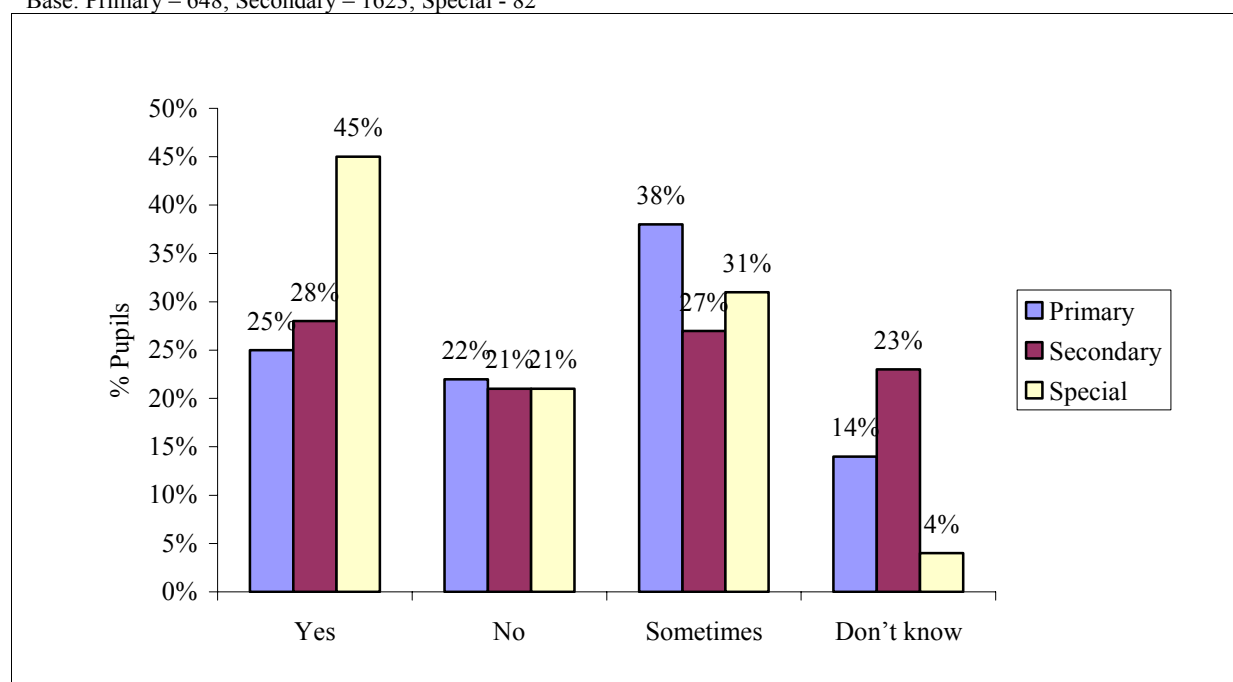
4.35 It might have been expected that primary school pupils would have felt there was enough of a choice, given the fact that the menus have been changed in most primary schools to meet the *Hungry for Success* recommendations and should therefore offer more choice. However, it is important to note that this result refers to pupils' *perceptions* of the choice available. The qualitative research suggested that the introduction of new menus in primary schools may have restricted pupils' ability to choose the range of options and particular dishes they used to which could be a reason for this perception. One Head Teacher told us:

"In some ways I feel that previously when we had the cafeteria system the children had what I would consider a healthy option every day" (Head Teacher, primary school).

4.36 The perceived lack of choice could also be linked to the level of choice available at the end of lunchtime in some schools, when the most popular options have run out, as this was identified as an issue in some schools in the qualitative research. A number of ways in which choice was restricted are discussed below.

Figure 4.2: Are there enough different food for people who eat school meals to choose from each day? (% pupils)

Base: Primary – 648; Secondary – 1623; Special - 82



Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

4.37 In primary case study schools 26% of primary 5 pupils felt there was enough choice compared with 20% of primary 7 pupils. However, the greatest difference is in the proportion of pupils who felt there was *not* enough choice: 30% of primary 7 children compared with 19% of primary 5 pupils. Primary 6 pupils were most content with the range of choices, as 30% felt there was enough choice and 15% felt there was not.

4.38 In the secondary schools, the results indicate that perceptions of a lack of choice generally increased with age. Younger pupils were more content with the choice of food

available. A third of S1 pupils said there was enough choice, compared with 15% of S5 pupils (although this figure did rise to 28% of S6 pupils). Similarly, 16% of S1 pupils said there was not enough choice compared with 30% of S6 pupils. One fourth year male pupil said that if the choice was increased, more pupils might consider using the school meals service:

“..the variety could be better, the choices at break and lunchtime, then maybe we’d consider using it” (pupil, secondary school).

Restriction of choice

4.39 Choice was limited in a number of ways. Set meal options were used as a way of ensuring pupils were choosing a balanced meal and to encourage pupils to try new options. However, on occasions, pupils said they would like more flexibility in the choice. For example, to be able to choose two items from the salad bar although the set option only allows one. In one or two schools, the catering staff said they used their discretion in such cases and allowed some variation in the set options.

4.40 Choice was also restricted by attempts to encourage healthier eating. Pupils in one primary school were aware of such attempts and said they preferred a previous points system which rewarded pupils for healthy choices made, rather than more directed choice such as set meals or restrictions on serving particular, less healthy foods. In another small primary, no set meals were offered. The Head Teacher reported they had tried set meals in the past and that uptake had decreased.

4.41 Reductions on the number of days on which chips were served are one example of the way in which less healthy options were being restricted. Some pupils had complained about this, although others said they could get chips elsewhere if they wanted them so were unconcerned. This view was echoed in a school where ‘chip serving days’ had not been reduced, when pupils were asked to consider whether reducing the serving of chips would be a good idea or not:

“If they didn't have chips what would happen is the day they didn't have chips folk would go down the street to the chippy” (pupil, secondary school).

4.42 Another way in which choice was limited was by availability. In some schools, the most popular choices ran out quickly. These often included the snack items such as hot dogs or pizza. Some pupils did say that by the time they were served, there were no options left that they liked and so they ate some confectionery instead of a meal. Catering staff attempted to reduce limited choice, by making what they believe to be the required number of portions of different items for that day. This could mean that they are making for example, 350 snack options and 10 main meal options.

4.43 Some pupils felt that the healthy option choices were also restricted. For example in one special school, pupils and teaching staff said they would like more choice in the vegetables served. In another small secondary school, pupils indicated that they would like more fruit and salads to be sold, as there were only two plates of salads made up daily. Pupils in a third school suggested more fruit could be available and also that dips could be provided with options such as raw carrots and cucumber slices to make them more attractive.

Factors affecting choice

4.44 While many pupils exhibited ‘expected’ unhealthy eating habits, as mentioned previously, a number of pupils (particularly older and female pupils) demonstrated an understanding of the need for healthier eating and suggested they would like more opportunities to eat healthily. There was some evidence in a few schools that pupils found the healthy options limited. Pupils in one large secondary school believed their choice was limited according to payment methods (as different methods and different foods were served in different dining halls). Although catering staff said this was not the case, pupils felt they were restricted to the less healthy snack choices offered in the dining hall that they used when paying cash. However, in another large secondary school, pupils reported more healthy choices had recently been introduced and were satisfied with the options available.

4.45 Although there was clearly a demand from some pupils for healthier eating, for others ‘value for money’ was more important. Often this was given as a reason why pupils chose to eat out of school, using local chip shops, cafes or bakers’ shops. In some cases the food was cheaper, while in others larger portions were provided at a similar cost. Quality was another criterion that pupils considered in making their choice of what to eat. Pupils in some secondary schools mentioned the poor quality of food in general, of sandwiches in particular and of foods not being warm enough and not being cooked properly.

4.46 Both primary and secondary pupils were asked in the questionnaires whether anyone helped them to decide what to have for lunch, such as dinner ladies or their parents. Just under a third of primary pupils (30%) said that this was the case, with 12% of pupils receiving help from parents, 10% from friends, and 5% from a dinner lady. In secondary schools, only 15% of pupils received help deciding what to eat for lunch, with 7% being helped by friends and 7% being helped by parents. However the qualitative research showed that, in most cases, parents were not using menus sent out in advance to assist pupils making choices.

Pupils’ and teachers’ views on school meals

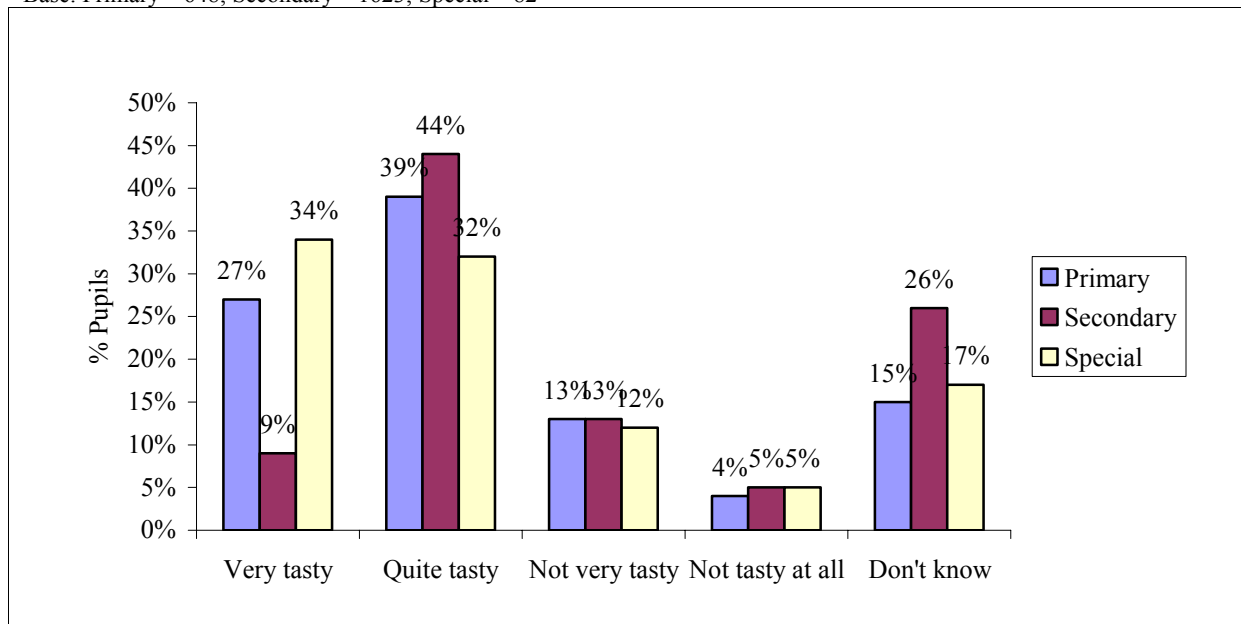
Taste and health

4.47 Pupils in case study schools were asked about the tastiness of the school meals served in their school (Figure 4.3). The majority of pupils in both primary and secondary case study schools said that the school meals were very or quite tasty, although significantly more primary than secondary pupils said this was the case (66% compared with 53%). This suggests that opinions of meals held by primary school pupils are higher than those of secondary school pupils. It is not possible to determine whether this difference is due to changes to primary school menus, or to other factors such as the age of pupils. Around a quarter (26%) of secondary pupils were unsure if the meals were tasty or not.

4.48 Within primary schools, there was a difference between year groups, with 14% of primary five, 9% of primary six, and 27% of primary seven pupils saying the meals were not tasty. This reveals a particular problem among primary seven pupils. In secondary schools, opinions of school meals worsened with age with 13% of S1 pupil saying the meals were not tasty compared with 28% of S6 pupils.

Figure 4.3: How tasty are the school meals at your school? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82



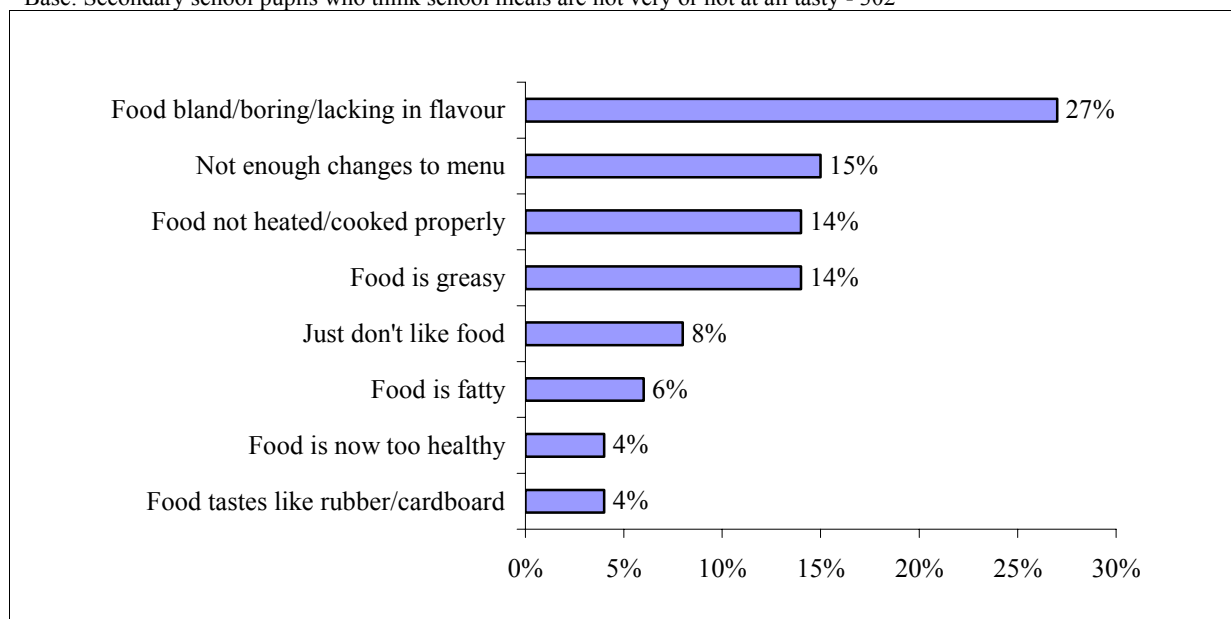
Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires

4.49 Pupils in secondary schools who had said they thought school meals were either not very or not at all tasty were asked (unprompted) why they thought this way (see Figure 4.4). The most common complaint was that the food was bland, boring or lacking in flavour (27%) or that the menu choices did not change often enough (15%). Pupils also complained that the food was too greasy (14%); a problem which should be reduced when the new menus are introduced in secondary schools.

Figure 4.4: Why do you think the school meals at your school are not very tasty or not at all tasty? (% secondary pupils)

Base: Secondary school pupils who think school meals are not very or not at all tasty - 302



Percentages do not all add up to 100 – no reason not shown

Source: case study school pupils' attitudinal questionnaires – secondary schools

4.50 Pupils were also asked how healthy they thought the school meals were at their school (see Figure 4.5). Around a quarter of pupils said they did not know or were unsure. Significantly more primary than secondary pupils thought the school meals were either very or quite healthy (59% compared with 44%). Again, as primary schools have only begun to introduce new menus that comply with the nutritional standards and comprise healthy dishes, it is not possible at the moment to attribute these difference in opinion to the *Hungry for Success* recommendations, as the results may more generally reflect an age difference or other factor.

4.51 Around 13% of primary pupils considered their school meals to be unhealthy. This opinion was also revealed in the qualitative interviews, even among pupils from a large primary school which was fairly well ahead in terms of implementing the recommendations:

“The school’s got a football team and an athletic team and if they keep doing fattening stuff the athletics team will get fat” (pupil, primary school).

This suggests that the new healthy menus could perhaps benefit from more promotion to make all pupils aware that the meals are nutritionally balanced and healthy.

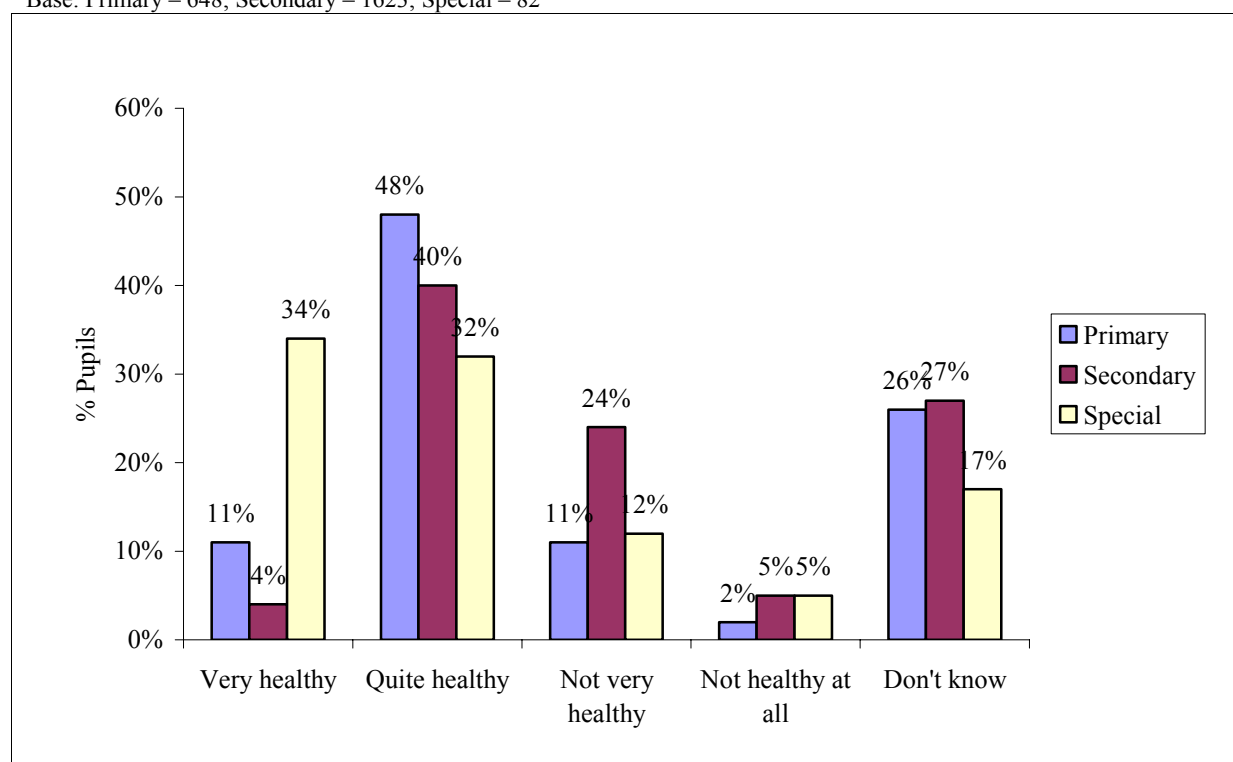
4.52 As just under three in ten secondary school pupils (29%) consider school meals to be not very or not at all healthy, this suggests that the perception of secondary school meals could be improved. However, 44% of secondary pupils do think the school meals are healthy. Some schools have made recent changes to the menus which seem to have impressed some pupils:

“..they’ve got quite a lot of fruit. Yesterday there was a big bowl of fruit salad and you can buy separate fruit as well. It is quite healthy and then they’ve got water as well instead of juice – so it’s better” (pupil, secondary school).

This will be an interesting result to revisit, once the changes to the secondary school menus have been introduced.

Figure 4.5: How healthy do you think the school meals at your school usually are? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82



Percentages do not all add up to 100 due to rounding

Source: Case study school pupils' attitudinal questionnaires

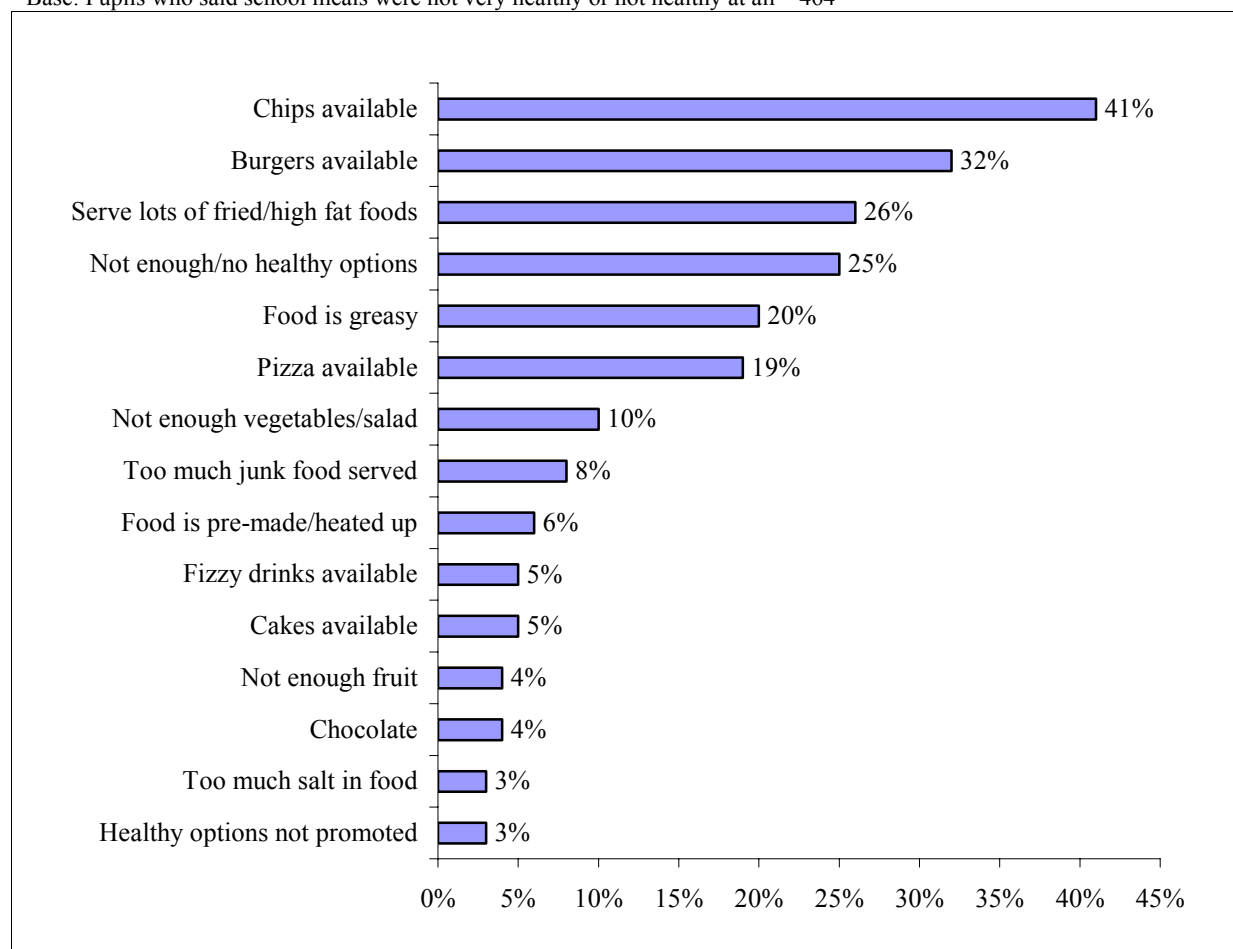
4.53 In terms of age differences within secondary schools, there was no consistent pattern. However, 39% of S1 pupils considered the meals to be not very or not at all healthy, which was a higher proportion than any other age group. It may be that this group was more used to primary school meals, and so the secondary school meals may have seemed unhealthy in comparison.

4.54 Significantly more males than females in both primary and secondary schools said they were unsure as to whether the school meals were healthy or not (31% compared with 21%, and 34% compared with 20% respectively). This may suggest that females have more awareness or interest in what items are considered healthy, a finding borne out in our qualitative discussions.

4.55 Secondary school pupils who thought that the school meals were either not very healthy or not at all healthy were asked why they thought this way (see Figure 4.6). Many of the reasons were linked to specific foods that were on sale in the school canteen, such as chips (41%), burgers (32%), pizza (19%) and cakes (5%). Just over a quarter of pupils (26%) felt that school meals were unhealthy as many fried or high fat foods were on sale, and a further 8% said that the canteen served too much junk food.

Figure 4.6: Why do you think the school meals at your school are not very healthy or not at all healthy? (% secondary pupils)

Base: Pupils who said school meals were not very healthy or not healthy at all – 464



Source: case study school pupils' attitudinal questionnaires – secondary schools

4.56 In the qualitative research, pupils in primary case study schools generally reported they could find something tasty on the menu. The introduction of new menus was seen in some primary schools as having a positive effect on both the taste and the healthiness of food. In one school, the new menus were encouraging more pupils to eat hot school meals. However, staff in a few primary schools felt that they were struggling with the new menus, as they felt that the recipes were too adult-oriented and that this had discouraged some pupils from eating school meals.

4.57 Catering staff said they tried to use the best ingredients they could. In some cases they expressed concern about the quality of produce, such as meat, provided by preferred suppliers. Complaints by pupils about whole fruit were common: that it was brown, bashed

or unripe or that it had been sitting in the fruit bowl for days. Snacks using processed meat were criticised as being unhealthy by catering staff and by some pupils.

4.58 Cooks in some secondary schools were beginning to make changes to the way they cooked food. Changes included reducing salt and sugar, not using cream in custard, using a mixture of wholemeal and refined flour, and using ‘light mayo’ (a mix of low fat yogurt and low fat mayonnaise) in sandwiches, coleslaw, tuna mayonnaise and coronation chicken.

Good and bad aspects of school meals

4.59 Pupils were asked in the questionnaires (unprompted) to state what they thought was good and bad about the school meals in their school. The results for the good aspects of school meals mentioned by primary schools are displayed in Table 4.1. Just under a fifth of pupils (18%) did not answer, and 4% said they did not know.

Table 4.1: What do you think is good about school meals in your school (% primary pupils)

Base: 648

Good/tasty/fresh food	36%
Health, good quality food	13%
Like the menu/choices	13%
Clean canteen/like the canteen	12%
Drinks, water, juice are good	9%
Like the school meals	7%
Like the dinner ladies	7%

Source: case study school pupils’ attitudinal questionnaires – primary schools

4.60 Over a third (36%) said that the food was good, fresh or tasty, and 13% said the food was healthy or of good quality. Thirteen per cent (13%) liked the menus and the choices available, and 12% liked the canteen.

4.61 As well as mentioning aspects of the school meal service, pupils also mentioned some of the food on offer. For example, pizza and fruit were mentioned by 7% of pupils. The following food items were mentioned by 5% of pupils or fewer: chips, hot dogs/sausages, salads, milk, chicken/turkey, curry, pasta/spaghetti, soup, desserts/pudding; burgers, baked and mashed potatoes, yogurt and vegetables.

4.62 Pupils were also asked what they thought was bad about the school meals in their school. The results for primary schools are displayed in Table 4.2. A tenth thought nothing was bad about the school meals, 5% did not know, and 22% did not reply to the question.

4.63 Over a tenth (12%) of primary pupils said the food was not very nice or not tasty, 10% said there was little choice left towards the end of lunchtime, and 10% said that the menus did not provide enough choice. The results on choice confirm the earlier ones discussed in the previous section on ‘pupils’ lunchtime choices’. As well as the food, pupils also reported disliking some other aspects of the school meals service such as queuing and the lack of cleanliness.

Table 4.2: What do you think is bad about school meals in your school (% primary pupils)

Base: 648

Food not very nice/not tasty	12%
No/little food/choices left	10%
Not enough choice/not a good selection/menu does not change	10%
Long queues/wait/no trays	9%
Dirty trays/cutlery – dining room dirty/smelly	6%
Unhealthy food	5%
Small portions	3%

Source: case study school pupils’ attitudinal questionnaires – primary schools

4.64 Fewer than 5% of primary school pupils mentioned the following specific foods as being a bad aspect of the school meals service: pasta, chips, puddings/desserts, fish/fish fingers, pizza, vegetables, curry, potatoes, sausages/hot dogs, and burgers.

4.65 Taken together, these results indicate that opinions towards school meals were more positive than negative. For example, a higher proportion of pupils mentioned the food being good and tasty than mentioned it being not very nice or not tasty. Similar proportions thought that there was/wasn’t a good choice on the menus and similar proportions said various foods such as chips, vegetables, and pizza are good or bad aspects of the school meals service.

4.66 The results for secondary pupils are displayed in Table 4.3. Just over a fifth (22%) did not provide an answer to this question, 14% said they didn't know or they didn't eat school meals, and 2% said nothing.

Table 4.3: What do you think is good about school meals in your school (% secondary pupils)

Base: 1623

Good/tasty/well cooked food	18%
Lots of choice/variety	17%
Healthy options available – don't just offer high fat foods	14%
Cheap/good prices	9%
Hot food	2%
Canteen is nice/good place to eat	2%
Dinner ladies/cooks are nice	1%

Source: case study school pupils' questionnaires – secondary schools

4.67 Just under a fifth (18%) of secondary pupils mentioned the food being good, tasty, or well cooked. A similar proportion (17%) thought there was a lot of choice and variety of foods available and 14% thought it was good that there were healthy options available.

4.68 Secondary pupils also mentioned specific foods as being a good aspect of the school meals service. These foods were mentioned by 5% of pupils or fewer chips, pizza, salads, burgers, pasta, rolls/bread and cakes.

4.69 Table 4.4 shows pupils' opinions of what was bad about school meals. The most common complaints were that the prices were too high (16%); that the canteen ran out of food and that pupils could not always buy the food they want (10%). Specific foods mentioned as being a bad aspect of the school meals service were: chips, burgers, carbonated drinks, pizza and chocolate. Again, these foods were mentioned by 5% of pupils or fewer.

Table 4.4: What do you think is bad about school meals in your school (% secondary pupils)

Base: 1623

Prices too high	16%
Canteen runs out of food/preferred choice not always available	10%
Not enough choice	9%
Not enough healthy choices	9%
Don't like the food/food doesn't taste nice	9%
Queues too long/takes too long to be served	7%
Too many fried/high fat options	5%
Food is sometimes greasy	5%

Source: case study school pupils' questionnaires – secondary schools

4.70 As among primary pupils, there were more positive than negative comments towards school meals. A higher proportion felt there was lots of variety (17%) than said there was not enough choice. One in seven (14%) commented positively on the healthy options available, while fewer than one in ten (9%) felt there were not enough healthy choices. However, a greater number believed prices were too high (16%) than that they were cheap/good (9%).

4.71 The aspects of the school meals service liked by pupils in the two case study special schools are displayed in Table 4.5. Just under a fifth (17%) did not answer this question, 1% said they did not know, and 9% said they simply ‘liked school meals’. Just under a tenth of pupils (9%) said there was a good menu and range of choices, and 7% said the food was good, tasty, or fresh. In contrast to the other schools, the most common responses were linked to specific foods. The foods most commonly mentioned as good aspects of the school meals service were: soup, fruit, milk, and chips.

Table 4.5: What do you think is good about school meals in your school (% special school pupils)

Base: 82

General:	
Good menu/choices	9%
Food good/tasty/fresh	7%
Healthy/good quality food	4%
Drinks/water/juice/ good	4%
Specific foods:	
Soup	11%
Fruit	11%
Milk	10%
Chips	9%
Hot dogs/sausages	7%
Pizza	7%
Baked/mashed potato	7%
Fish/fish fingers	6%
Cheese	6%
Burgers	5%
Salads	5%
Past/spaghetti	5%
Chicken/turkey	4%
Vegetables	4%

Source: case study school pupils’ questionnaires –special schools

4.72 When asked what was bad about the school meals service, 24% of pupils in special schools did not answer this question, and 7% said ‘nothing’. The remaining responses are displayed Table 4.6. Just under a fifth of pupils (18%) said the food was not very nice or not tasty. This is a higher proportion than the pupils giving any positive comments about school meals, perhaps suggesting that this is an area that could be improved. In terms of specific foods, vegetables were fairly unpopular with pupils in the special schools.

Table 4.6: What do you think is good about school meals in your school (% special school pupils)

Base: 82

General:	
Food not very nice/not tasty	18%
Not enough choice/not a good selection/menu does not change	7%
Small portions	6%
No/little food – no choices left	5%
Way food is presented/served	5%
Dirty trays/cutlery – dining hall dirty/smelly	4%
Unhealthy food	4%
Specific foods:	
Vegetables	11%
Soup	6%
Potatoes	6%
Pasta	5%
Pizza	5%
Cheese	5%

Source: case study school pupils’ questionnaires –special schools

Suggested improvements

4.73 Among the improvements suggested in the qualitative research to encourage healthier eating were better quality ingredients; more options of vegetables, salads and bread; limiting unhealthy choices; less fried food; and cheaper prices for healthier foods. In some cases the suggestions may reflect pupils’ knowledge of what constitutes healthy eating rather than what they themselves would choose to eat. When asked to construct an ideal menu, pupils generally included a combination of healthy and less healthy choices. Other suggested improvements were made that might not necessarily lead to healthier eating. For example one suggestion was that pupils’ favourite foods should be voted on and served.

CHAPTER FIVE PUPILS' WIDER DIETS

5.1 In this section, pupils' diets within and beyond the context of school meals are examined. Primary, secondary and special school pupils were asked to complete diet diaries as one element of the research. The results for each are considered in turn. Primary pupils completed diaries for five days while those in the secondary and special schools completed them for one day. Given the different time periods covered by the diet diaries, comparisons between the diets of primary school pupils and others are not possible.

5.2 It is important to remember that these results refer specifically to the diets of children in case study schools and do not necessarily reflect the diets of all pupils in Scotland. It should be noted that consumption is that recorded by pupils and may not be a completely accurate record of all food and drink consumed within the diet diary periods. In some cases not all foods consumed may have been fully recorded, for example the consumption of vegetables may have been under-reported in composite dishes such as spaghetti bolognese or other pastas dishes.

Primary schools

5.3 Primary pupils completed diet diaries for five days, covering Monday morning to Friday lunchtime, to gather information about their broader eating habits. The diaries were analysed to give an indication of the number of times a day or week pupils were eating or drinking items from a range of food groups, based loosely around the groups included in the “Menu Planning” table in the *Hungry for Success* Report.

Table 5.1: Number of times a week pupils consume particular types of food/drink before school (maximum = 5) - % of primary pupils

Base = 624

	No Days	One Day	Two Days	Three Days	Four Days	Five Days
Bread/cereal	4%	8%	8%	10%	19%	52%
Yogurt/milk	42%	18%	12%	10%	8%	10%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	83%	12%	3%	2%	1%	*
Fruit	72%	16%	7%	3%	2%	1%
Processed meats (e.g. sausages, burgers)	98%	2%	1%	*	-	-
Juice (including diluting juice)	46%	18%	11%	8%	8%	8%
Water	64%	18%	8%	4%	4%	3%
Fizzy drinks	80%	11%	5%	2%	2%	1%
Nothing to eat before school	81% ⁴	9%	5%	2%	2%	1%
Nothing to drink before school	59%	17%	10%	6%	5%	3%

Percentages do not all add up to 100 due to rounding

* = less than 1%; - = 0

Source: case study school pupils’ diet diaries – primary schools

5.4 The majority of pupils (81%) ate a breakfast on every day covered by the diet diary. Only 1% of pupils had no breakfast on all five days. However, just under one tenth (9%) missed breakfast on one day of the diet diary period. Over half (59%) had something to drink before school on every day, although this meant that around four in ten (41%) did not drink anything before school on all five days and 17% did not drink before school on one day out of the five.

5.5 The most common breakfast among pupils was bread or cereal, with 52% of pupils eating this on every day of fieldwork. A tenth of pupils had yogurt or milk everyday. Almost

⁴ This figure is the percentage of pupils who ate a breakfast on each day of the five day diary

three quarters did not eat fruit on any day. In terms of unhealthy eating, over a tenth (12%) of pupils had fried, high fat, or high sugar foods⁵ before school on one day of fieldwork and 11% had fizzy drinks on one day. It was very uncommon for pupils to eat processed meats before school.

Table 5.2: Number of times a week pupils consume particular types of food/drink at school during the morning (maximum = 5) - % of primary pupils

Base = 624

	NONE	One	Two	Three	Four	Five
Bread/cereal/pasta/rice/noodles/potatoes	97%	3%	*	*	-	*
Yogurt/milk	74%	11%	4%	3%	4%	5%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	7%	7%	10%	13%	21%	43%
Fruit	71%	17%	6%	3%	2%	1%
Processed meats (e.g. sausages, burgers)	-	-	-	-	-	-
Juice (including diluting juice)	62%	15%	7%	5%	4%	7%
Water	46%	17%	12%	10%	9%	7%
Fizzy drinks	70%	16%	8%	4%	1%	2%
Nothing to eat at school during morning	68%	15%	7%	4%	4%	3%
Nothing to drink at school during morning	46%	16%	10%	9%	9%	10%

Percentages do not all add up to 100 due to rounding

* = less than 1%; - = 0

Source: case study school pupils' diet diaries – primary schools

5.6 Table 5.2 displays the types of food that pupils ate between arriving at school and lunchtime. The majority of pupils ate something at this time on all five days (68%) and almost all pupils (97%) ate during the morning on at least one day out of five. Over half (54%) did not have a drink during the morning on all five days. The most common type of food eaten at this time was fried, high fat or high sugar foods, with a large minority (43%) of pupils eating this on every day of the diet diary period. Just under a fifth (17%) ate fruit on one day of the five, and 11% had milk or yogurt. The type of drinks pupils consumed in the morning varied, although water was most often drunk at this time (54% drank water on at least one day). Given that all but one of the case study primary schools supplied water to pupils it might have been expected that this figure would be higher. The majority of pupils did not have fizzy drinks at all at this time (70%), presumably as these products are banned or

⁵ This category includes foods such as chips, crisps, pizza, ice cream, sweets/chocolate, puddings other than fruit/yogurt, biscuits and cakes)

discouraged in many primary schools, although around one in six (16%) pupils did have these drinks on one day out of the five.

Table 5.3: Number of times a week pupils consume particular types of food/drink at lunch (maximum = 5) - % of primary pupils

Base = 624

	NONE	One	Two	Three	Four	Five
Bread/cereal/pasta/rice/noodles/potatoes	7%	10%	14%	18%	22%	30%
Yogurt/milk	59%	15%	8%	8%	6%	4%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate, chips)	12%	16%	21%	18%	18%	15%
Fruit	24%	19%	14%	13%	16%	14%
Vegetables/salad	69%	21%	6%	3%	1%	1%
Processed meats (e.g. sausages, burgers)	55%	29%	12%	3%	1%	*
Cheese/egg products	85%	10%	3%	2%	*	1%
Fish/fish fingers	73%	20%	6%	1%	-	-
Meat/meat dishes	67%	21%	10%	2%	1%	*
Soup	81%	15%	3%	1%	1%	-
Juice (including diluting juice)	30%	17%	11%	11%	13%	18%
Water	59%	19%	9%	5%	4%	4%
Fizzy drinks	84%	10%	4%	1%	1%	1%
Nothing to eat at lunch	97%	3%	-	-	-	-
Nothing to drink at lunch	77%	12%	5%	2%	3%	2%

Percentages do not all add up to 100 due to rounding

* = less than 1%; - = 0

Source: case study school pupils' diet diaries – primary schools

5.7 Table 5.3 displays the types of food that pupils ate at lunchtime during the week of fieldwork. Given the types of meal choices primary pupils make, these foods mostly reflect what is offered by the school meals service, as well as what pupils bring for packed lunches. Almost all pupils (97%) ate lunch on every day during the period covered by the diet diary; the remaining pupils missed lunch on one day out of the five. Over three quarters (77%) of pupils drank something every day at lunchtime.

5.8 Products from food group 1, such as potatoes, pasta, rice or bread were eaten every day by 30% of pupils. Meat, fish and alternatives from food group 4 were widely consumed. Around half of pupils (45%) ate a processed meat product on at least one day out of the five; one in six ate them more than the recommended once a week. A third ate meat/meat dishes (33%), over a quarter (27%) fish and one in 7 (15%) cheese or egg products on at least one day out of the five.

5.9 Fruit was eaten by over three quarters of pupils (76%) on at least one day during the week and 14% on five days. Vegetables were not so popular; seven in ten pupils (69%) had no vegetables or salad on any day. While this is discouraging, it may not include vegetables that are 'hidden' in dishes, such as onions and carrots in spaghetti bolognese. Few pupils reported eating soup, despite it being reported as popular by catering staff in primary schools (Section D – What Pupils Eat: Pupils Lunchtime Choices) and reported as being liked by over nine in ten pupils (Section F – Food Preferences). Most (81%) of the case study pupils reported that they did not have soup on any days during the diet diary period. Around four in ten (41%) had yogurt, milk or a milk-based product on at least one day out of five.

5.10 Only 12% of pupils did not consume any fried, high fat or high sugar foods at lunchtime during the diet diary period, with one in seven (15%) of pupils eating these products on all five days. Not many pupils drank fizzy drinks at lunchtime, with only one in six (17%) of pupils taking these on at least one day. Instead juice was the most popular lunchtime drink choice⁶, consumed by seven in ten on at least one day. Juice and water were each consumed by one in six primary pupils in case study schools (17% and 19% respectively) on one day out of the five on which diet diaries were completed.

⁶ It should be noted that it is not possible to comment on the relative popularity of milk compared with other drinks

Table 5.4: Number of times a week pupils consume particular types of food/drink at school during the afternoon (maximum = 4) – % of primary pupils

Base = 624

	NONE	One	Two	Three	Four
Bread/cereal/pasta/rice/noodles/potatoes	96%	2%	1%	1%	*
Yogurt/milk	-	-	-	-	-
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	52%	24%	11%	8%	5%
Fruit	76%	14%	7%	3%	1%
Processed meats (e.g. sausages, burgers)	99%	1%	-	-	-
Juice (including diluting juice)	73%	17%	6%	3%	2%
Water	-	-	-	-	-
Fizzy drinks	-	-	-	-	-
Nothing to eat at school during afternoon	18%	15%	19%	23%	25%
Nothing to drink at school during afternoon	26%	16%	19%	19%	20%

Percentages do not all add up to 100 due to rounding

* = less than 1%; - = 0

Source: case study school pupils' diet diaries – primary schools

5.11 The foods and drinks that pupils consumed during the afternoon are displayed in Table 5.4. More pupils reported eating or drinking something in the morning during school than they did in the afternoon. 18% ate something on all five days in the afternoon compared with 68% during the morning. Just over a quarter (26%) drank something on all five days in the afternoon, compared with almost a half (46%) in the morning. A quarter of pupils did not eat anything, and a fifth did not drink anything in the afternoon during the period covered by the diet diary. Just under a half (52%) ate fried, high fat, or high sugar foods; around a quarter (24%) ate fruit and a similar proportion (26%) drank juice in the afternoon on at least one day out of five.

Table 5.5: Number of times a week pupils consume particular types of food/drink after getting home from school (maximum = 4) – % of primary pupils

Base = 624

	NONE	One	Two	Three	Four
Bread/cereal/pasta/rice/noodles/potatoes	7%	20%	29%	27%	18%
Yogurt/milk	50%	25%	11%	8%	6%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate, chips)	5%	11%	20%	25%	39%
Fruit	37%	25%	17%	11%	10%
Vegetables/salad	34%	27%	19%	12%	8%
Processed meats (e.g. sausages, burgers)	27%	33%	28%	11%	2%
Cheese/egg products	78%	18%	4%	-	-
Fish/fish fingers	80%	18%	1%	1%	-
Meat/meat dishes	51%	34%	14%	2%	-
Soup	80%	17%	2%	1%	-
Juice (including diluting juice)	34%	23%	18%	13%	12%
Water	53%	24%	10%	6%	7%
Fizzy drinks	44%	22%	14%	12%	8%
Nothing to eat after school	90%	6%	3%	1%	*
Nothing to drink after school	88%	10%	2%	1%	*

Percentages do not all add up to 100 due to rounding

* = less than 1%; - = 0

Source: case study school pupils' diet diaries – primary schools

5.12 As well as analysing what pupils ate when they were at school, an important element of the research was to determine what pupils ate outwith school hours, as this has important effects on how pupils view healthy eating and thus can affect the whole school approach to healthy eating. The types of food and drink that pupils consumed after school are displayed in Table 5.5. The majority of pupils ate (90%) or drank (88%) something every day when they left school. However, around one in ten primary pupils did not eat or did not drink after school on at least one day, echoing the view expressed by catering staff in a small minority of schools that for a few pupils, school lunch might be their only meal of the day.

5.13 The most commonly consumed foods were either fried, high fat, or higher sugar products. Only 5% of pupils did not report eating these foods during the five days covered by the diet diary and four in ten (39%) ate such foods on four days. Other commonly consumed foods were products from group 1 such as pasta, rice and potatoes, with only 7% of pupils not eating these foods during the period covered by the diet diary. In terms of meat fish and alternatives from group 4, processed meats were once again the most often consumed; just under three quarters (73%) ate these products on at least one day during the fieldwork period. Just over half the pupils (51%) did not have any meat or meat dishes during the fieldwork period, although 34% ate these once during the diet diary period. Fish was not such a popular option, with 80% of pupils having no fish at all although 18% of pupils did have fish once. Only 18% of pupils ate cheese or egg products once during the fieldwork and only 22% ate such products at all during the five days.

5.14 Fruit consumption was a little lower in the evenings than that recorded at lunchtime (63% evening; 76% lunchtime on at least one day). In contrast, vegetables were consumed more often in the evening than at lunchtime (67% and 31% ate vegetables on at least one day out of the five respectively). Around a third of pupils ate no fruit (37%) and a similar proportion (33%) had no vegetables or salad in the evening during the period covered by the diet diary. However, a quarter of pupils ate fruit once, a further 17% had fruit twice, and 10% of pupils had fruit every day during the five days covered by the diet diary. Just under a tenth (8%) had vegetables or salad every day, and 27% had them one day. The majority of pupils did not have soup at all (80%), although 17% had soup on one day out of the five.

5.15 Under half of primary pupils (44%) did not have fizzy drinks in the evening at all during the diet diary period. However, 22% drank them on one day, 14% on two days, and 8% every day. Over half (53%) did not drink water on any day in the evening, although 24% had water on one day. Juice was the most commonly reported drink, with only 34% never having this drink in the evening and 12% drinking it every day. Milk and yogurts were taken by half of pupils on at least one day during the period covered by the diet diary.

Special schools

5.16 The diet diaries were also completed by 40 special school pupils. However, rather than pupils completing this diary over the space of a week, they completed the diary for one day. Given the low number of pupils ($n = 40$), the results are discussed only as proportions.

Before school

5.17 A quarter of pupils did not have anything to eat before school on the one day covered by the diet diary, while just under a third had nothing to drink that day. Seven in ten pupils had either cereal, toast, or bread; just over a third had fruit; a fifth had yogurt or milk and a fifth had either fried, high fat, or high sugar products.

5.18 In terms of drinks: a quarter of pupils had juice; just under a fifth had water and an eighth had tea/coffee. A further eighth of pupils had fizzy drinks for breakfast on the diet diary day.

Morning snack

5.19 Just over a third of special school pupils did not eat anything during the morning on diet diary day. The most commonly consumed foods were high fat or high sugar foods, with a half of pupils eating these foods during the morning on the day they completed the diet diary. Fruit, milk, and yogurts were consumed by less than a tenth of pupils. In terms of drinks, around a sixth of pupils had water, one in seven had fizzy drinks, and an eighth had juice.

Lunchtime

5.20 At lunchtime, a tenth of pupils ate a meat dish, and three in ten pupils ate processed meat products. A quarter of pupils ate fried/high fat/high sugar products. Nearly eight in ten ate some form of carbohydrate (e.g. bread, pasta, rice, potatoes), under a half had soup and an eighth had a cheese or egg product. A quarter had either vegetables or salad at lunchtime. Just over half had milk or a yogurt and just over a third of pupils ate fruit. In terms of drinks: just over four in ten had juice and just under a fifth had water.

After school

5.21 Three quarters of pupils had a carbohydrate product after school, such as bread, pasta, rice, or potatoes. Around a third had meat or a meat dish, and around a sixth had a processed meat product. A tenth had cheese or egg products, and just under a tenth had fish or fish fingers. Over half the pupils had fruit, and over a third had vegetables or salad.

5.22 The most commonly consumed foods were either fried, high fat, or high sugar foods with over three quarters of pupils having these on the day they completed the diet diary. Just over four in ten pupils had fizzy drinks.

5.23 Over a third of pupils had yogurt or milk, just over a fifth had water and one in seven pupils drank juice.

Secondary schools

5.24 Pupils in secondary schools were asked to complete diet diaries for one day. The results are displayed in the tables below.

Table 5.6: Proportion of pupils who consumed particular types of food/drink before school - % of secondary pupils

Base = 1487

Bread/cereal	67%
Yogurt/milk	26%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	4%
Fruit	14%
Processed meats (e.g. sausages, burgers)	1%
Cheese/egg products	2%
Meat/meat dishes	2%
Juice (including diluting juice)	31%
Water	22%
Fizzy drinks	11%
Tea/coffee	16%
Nothing to eat at before school	22%
Nothing to drink before school	13%

Source: case study school pupils' diet diaries – secondary schools

5.25 Table 5.6 displays the types of food and drink that secondary pupils consumed before they arrived at school. A significant proportion of pupils (22%) had not eaten a breakfast on the day of fieldwork, and 13% of pupils had not drunk anything. The most common foods eaten by pupils were carbohydrate options, such as cereal and toast (67%). Around a quarter (26%) consumed yogurt or milk, and 14% ate fruit. In terms of drinks, 31% of pupils had drunk juice, 22% had had water, and 16% of pupils had had tea or coffee. Just over a tenth of pupils had had fizzy drinks for breakfast.

Table 5.7: Proportion of pupils who consume particular types of food/drink at school during the morning - % of pupils

Base = 1487

Bread/cereal/pasta/rice/noodles/potatoes	9%
Yogurt/milk	4%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	49%
Fruit	10%
Processed meats (e.g. sausages, burgers)	2%
Juice (including diluting juice)	8%
Juice drink	1%
Water	36%
Fizzy drinks	19%
Tea/coffee	1%
Nothing to eat at school during morning	32%
Nothing to drink at school during morning	32%

Source: case study school pupils' diet diaries – secondary schools

5.26 Table 5.7 displays the types of food and drink consumed by pupils throughout the morning. Just under a third of pupils (32%) had not eaten anything, with the same proportion of pupils not drinking anything during the morning on the diet diary day. The largest percentage of pupils had eaten either fried, high fat, or high sugar foods (49%). Other foods consumed included fruit (10%) and carbohydrate foods (9%). Water consumption was encouraged in most secondary schools, in some schools even during class time. Over a third of pupils had drunk water (36%) during the morning. Just under a fifth of pupils (19%) had had fizzy drinks during the morning.

Table 5.8: Proportion of pupils who consume particular types of food/drink at lunch - % of secondary pupils

Base = 1487

Bread/cereal/pasta/rice/noodles/potatoes	44%
Yogurt/milk	9%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	58%
Fruit	12%
Vegetables/salad	6%
Processed meats (e.g. sausages, burgers)	15%
Cheese/egg products	7%
Fish/Fish fingers	3%
Meat/meat dishes	7%
Soup	3%
Juice (including diluting juice)	15%
Juice drink	3%
Water	36%
Fizzy drinks	36%
Tea/coffee	2%
Nothing to eat at lunch	4%
Nothing to drink at lunch	6%

Source: case study school pupils' diet diaries – secondary schools

5.27 Table 5.8 reveals that the food type most commonly eaten by pupils at lunchtime on the day of fieldwork was fried, high fat, or high sugar products (58%). Carbohydrate products such as bread, potatoes or pasta were the next most common foods, with 44% of pupils eating this at lunchtime. Fifteen per cent of pupils had eaten some form of processed meat, 7% had eaten either a cheese or egg product, and 7% had eaten a meat dish.

5.28 Consumption of fruit and vegetables was not as common. Only 6% of pupils had eaten either vegetables or salad, with 12% eating some type of fruit. Just under a tenth had consumed milk or yogurt (9%) and only 3% had eaten soup.

5.29 In terms of drinks, the same proportion of pupils drank water and fizzy drinks at lunchtime (36%) while 15% drank juice.

Table 5.9: Proportion of pupils who consume particular types of food/drink at school during the afternoon - % of secondary pupils

Base = 1487

Bread/cereal/pasta/rice/noodles	2%
Yogurt/milk	2%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	21%
Fruit	6%
Juice (including diluting juice)	5%
Water	24%
Fizzy drinks	15%
Tea/coffee	1%
Nothing to eat at school during afternoon	69%
Nothing to drink at school during afternoon	52%

Source: case study school pupils' diet diaries – secondary schools

5.30 The majority of pupils did not eat (69%) or drink (52%) anything during the afternoon of fieldwork (see Table 5.9). Just over a fifth of pupils (21%) had eaten high sugar or high fat foods. Around a quarter of pupils (24%) drank water and 15% had had a fizzy drink.

Table 5.10: Proportion of pupils who consume particular types of food/drink after getting home from school - % of secondary pupils

Base = 1487

Bread/cereal/pasta/rice/noodles/potatoes	62%
Yogurt/milk	23%
Fried/High fat/high sugar foods (e.g. crisps, sweets, chocolate)	70%
Fruit	47%
Vegetables/salad	49%
Processed meats (e.g. sausages, burgers)	8%
Cheese/egg products	4%
Fish/Fish fingers	2%
Meat/meat dishes	22%
Soup	4%
Juice (including diluting juice)	30%
Water	35%
Fizzy drinks	36%
Tea/coffee	14%
Nothing to eat at lunch	2%
Nothing to drink at lunch	3%

Source: case study school pupils' diet diaries – secondary schools

5.31 Table 5.10 displays the types of food and drink that pupils consumed after leaving school on the day they completed the diet diary. Often the foods eaten by pupils were unhealthy. For example, the majority of pupils had eaten fried, high sugar, or high fat foods (70%) and a third of pupils had drunk fizzy drinks (36%).

5.32 Just under half of pupils had eaten fruit (47%) or vegetables or salad (49%) in the evening. Reported consumption of both fruit and vegetables or salad was much higher in the evening than at lunchtime (12% and 6% respectively).

5.33 In terms of main meals: 62% had eaten some type of carbohydrate product such as pasta, rice or noodles; 22% had eaten a meat dish; and 8% had eaten a processed meat product. In terms of drinks; 36% had had a fizzy drink; 35% had drunk water; and 30% of pupils had had juice.

CHAPTER SIX FOOD PREFERENCES

6.1 In this section we explore case study pupils' food preferences in general and in particular at lunchtime.

Food and drink preferences

6.2 All pupils were presented in the attitudinal questionnaire with a list of different foods and asked which of these foods they did and did not like. The results are displayed in Table 6.1. It should be noted that in this part of the questionnaire respondents may have answered in a way that they think is expected or desirable. Additionally, when respondents were presented with a list of items, there may have been a tendency to agree to like all the items on the list. These issues should be considered when interpreting the results.

6.3 All of the foods listed were liked by the majority of pupils. In terms of the healthier items, fruit was reported as being very popular with pupils in all sectors. Vegetables and salads were liked by the majority of pupils, but were liked by more primary than secondary or special school pupils. For example: vegetables were liked by 81% of primary pupils, 68% of secondary pupils and 66% of special school pupils. Water was very popular, especially amongst primary pupils. This may be as water is being promoted in primary schools as part of the recommendations. Fizzy drinks were almost as popular as water with case study pupils.

6.4 The majority of pupils also liked many of the less healthy items such as chocolate, crisps, chips, and pizza. Chicken nuggets and sausages were less popular, especially among secondary school pupils (59% and 64% of secondary pupils respectively).

Table 6.1: Which of the following do you like? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82

	Primary	Secondary	Special
Food:			
Fruit	97%	90%	92%
Bread	97%	85%	87%
Chocolate	96%	91%	90%
Crisps	95%	86%	89%
Chips	94%	89%	93%
Pizza	91%	88%	90%
Soup	91%	79%	78%
Pasta	87%	88%	71%
Chicken nuggets	85%	59%	76%
Sausages	85%	64%	78%
Vegetables	81%	68%	66%
Salad	70%	65%	63%
Baked potato	67%	69%	62%
Drink:			
Water	94%	86%	90%
Fizzy drinks	90%	86%	87%
Milk	89%	76%	88%

Source: case study school pupils' attitudinal questionnaires

6.5 There were not many differences in terms of the stage of pupils and their food preferences. The following results among secondary pupils highlight only the significant differences:

- The proportion of secondary school pupils who like milk decreases with age, from 80% of S1 pupils to 63% of S6 pupils
- Baked potatoes are more popular among older pupils: 74% of S6 pupils compared with 60% of S1 pupils liked baked potatoes

6.6 In primary schools, the only age difference was that soup was more popular among older pupils (95% of pupils in P7 compared with 86% of P5 pupils)

6.7 Gender differences in secondary schools generally revealed that females liked more healthy options than males and males liked more unhealthy items than females. For example, more females than males liked vegetables (74% compared with 62%); salad (75% compared with 54%); baked potatoes (75% compared with 63%); and pasta (91% compared with 85%). More males than females liked sausages (75% compared with 54%) and chicken nuggets (66% compared with 54%). However, milk was more popular among males than females (83% compared with 70%).

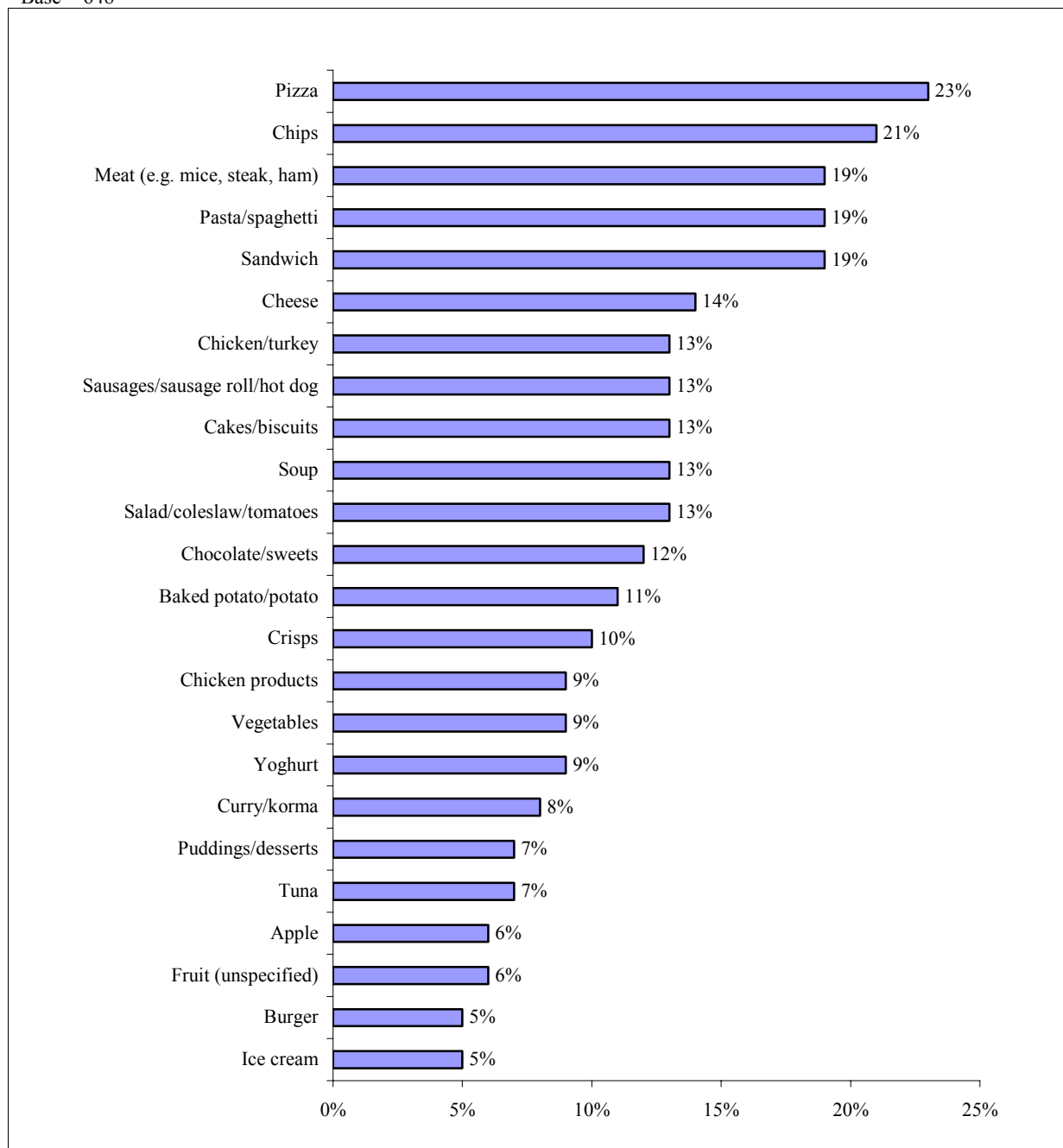
6.8 There were also gender differences in primary schools, although not quite to the same extent. However, again these differences revealed that females like more healthy foods than males. For example, more males than females liked pizza (94% compared with 87%) and more females than males like vegetables (88% compared with 75%); salad (79% compared with 62%) and baked potatoes (73% compared with 62%).

Lunchtime preferences

6.9 As well as asking pupils which foods they liked from a list of options, pupils in primary and secondary schools were also asked (unprompted) what they most like to eat for lunch. The results for the most popular lunch items among primary school pupils are displayed in Figure 6.1.

Figure 6.1: What do you most like to eat for lunch? (% primary pupils)

Base = 648



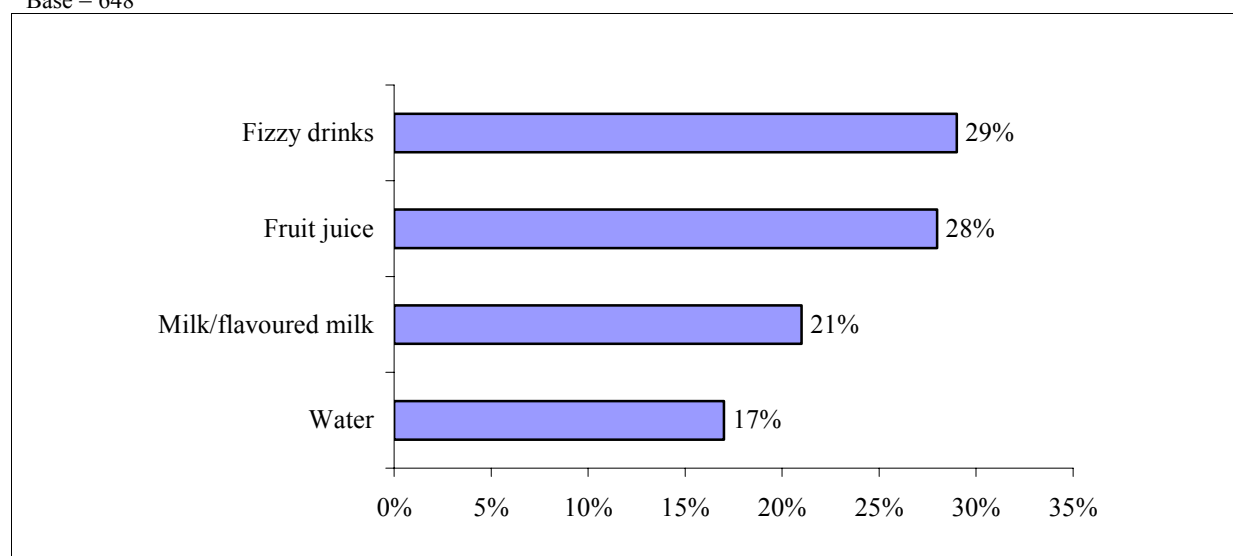
Source: case study school pupils' attitudinal questionnaires – primary schools

6.10 The most popular foods that pupils would most like to eat for lunch were pizza (23%) and chips (21%). Sandwiches and pasta were also popular choices (19%). Fruit and

vegetables were less popular options, with less than 10% of pupils citing these foods as being part of the ideal lunch.

Figure 6.2: What do you most like to drink for lunch? (% primary pupils)

Base = 648



Source: case study school pupils' attitudinal questionnaires – primary schools

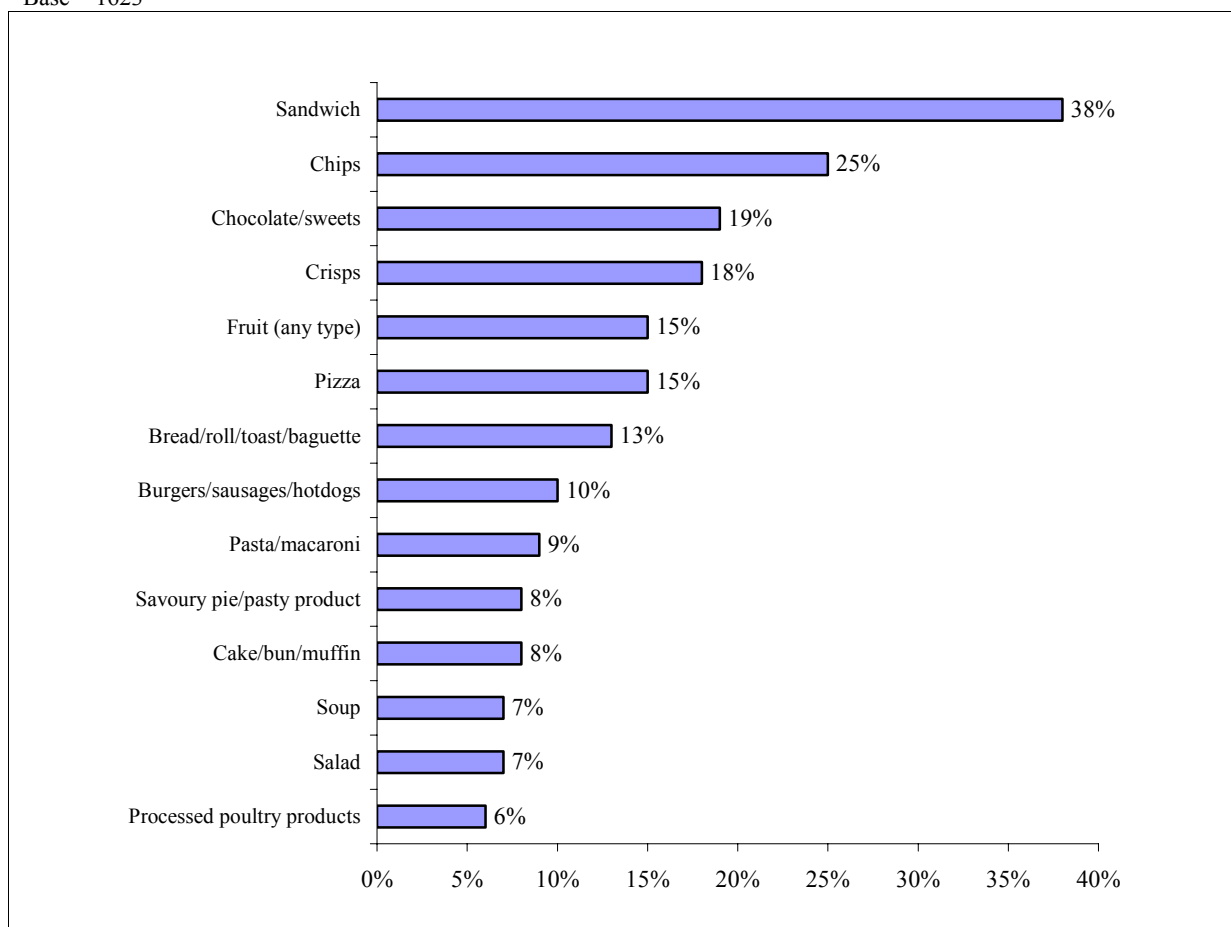
6.11 The most popular drinks were fizzy drinks and fruit juice. Taken together, these results indicate that ideally pupils would have a lunch of pizza and chips with either fizzy drinks or fruit juice. These unhealthy choices indicate the type of food that primary pupils ideally prefer, and highlight the challenges faced by schools to convert pupils to healthy eating, and consuming the new nutritionally balanced recipes on the menus.

6.12 The food and drink that secondary pupils chose for their ideal lunch are displayed in Figure 6.3 and Figure 6.4. The most popular food item was sandwiches (38%) followed by chips (25%). Secondary pupils also would ideally like to have snacks at lunchtime, with around a fifth of pupils mentioning chocolate/sweets and crisps as being part of their ideal lunch (19% and 18% respectively). In terms of healthier products, although pupils did not mention vegetables, 15% of pupils would want fruit and 7% would want salad as part of their lunch. Fizzy drinks were the most popular drinks (33%), followed by water (29%). Again, the ideal lunch choices are not particularly healthy, apart from sandwiches, which can represent a nutritionally balanced choice.

6.13 There were gender differences present among secondary pupils in terms of their lunch choices, which generally revealed that females preferred more healthy options to males. For example, more females than males would want sandwiches (40% compared with 29%); fruit (19% compared with 10%) and water (39% compared with 20%). In contrast, more males than females mentioned processed red meat products (13% compared with 7%) and fizzy drinks (40% compared with 27%) as their ideal lunch choices.

Figure 6.3: What do you most like to eat for lunch? (% secondary pupils)

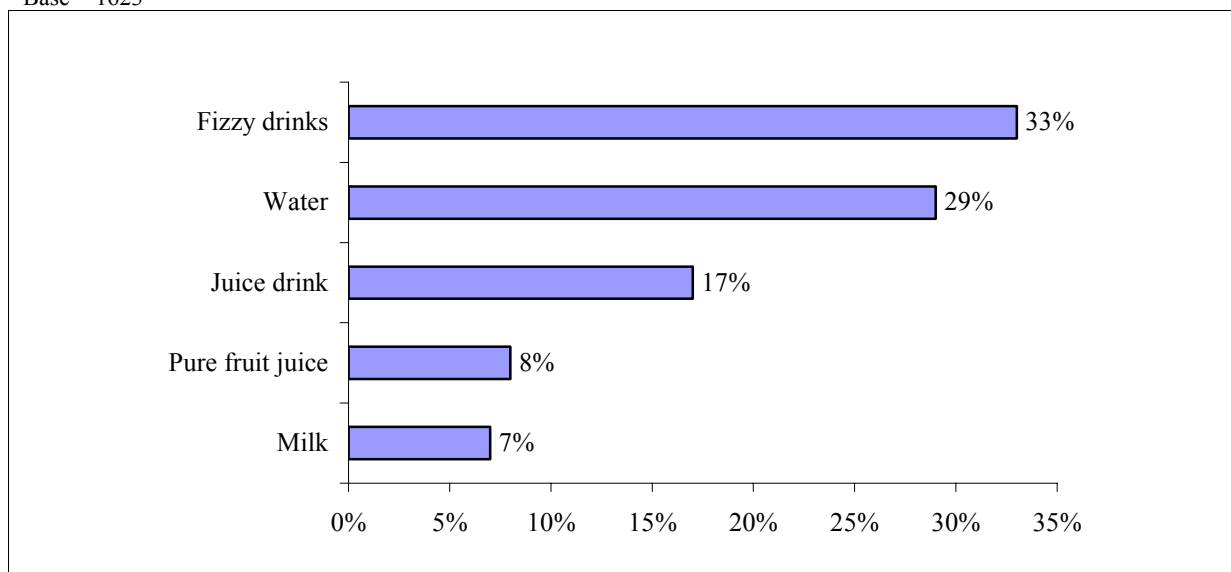
Base = 1623



Source: case study school pupils' attitudinal questionnaires – secondary schools

Figure 6.4: What do you most like to drink for lunch? (% secondary pupils)

Base = 1623



Source: case study school pupils' attitudinal questionnaires – secondary schools

CHAPTER SEVEN MARKETING OF FOOD AND DRINK WITHIN THE SCHOOL

7.1 This chapter focuses on the marketing and promotion of food within the school, including use of advertising or branded products, what types of information are provided to pupils and parents about school meals, how food is presented, and whether attempts are made to incentivise healthy choices. Relevant *Hungry for Success* recommendations include:

Recommendation 4: *School meal facilities should not advertise or promote food or drink with a high fat or sugar content*

Recommendation 16: *Caterers should consider appropriate means of labelling food and methods of conveying information on content to pupils and parents. Through existing school communication channels, menus should be forwarded to parents at least once a term. Schools and caterers should consider presentation, marketing and pricing structures to incentivise healthy choices*

Branding

7.2 In primary cases study schools, the branding that was used was generally restricted to milk products, or school meals services branding, for example the ‘Lunch Bunch’.

7.3 The level of branding in secondary schools was still limited. ‘White Stuff’ branding for milk was fairly common. Some schools had no vending machines, while others had unbranded machines which sold branded products such as Highland Spring and Krystal Clear. In one case, a vending machine with Coke branding was being used to sell healthy drinks rather than Coke. One small secondary school had a branded vending machine (Lucozade Sport), drinks fridges (Coca Cola and Pepsi) and litter bins (Coca Cola). It also had ‘White Stuff’ hoardings on the drinks counter.

7.4 Posters advertising Walkers Crisps were observed on the wall in a large secondary school along with others promoting fruit spring water and fruit. The head of one primary school reported there had been promotions for Walkers Crisps in the past, but that this was no longer the case. In one secondary school, although fizzy drinks had been banned, there was still a large (empty) Coca Cola branded freezer and a few Diet Pepsi flags displayed on one window.

Information provision

7.5 There was not much food labelling apart from labels of sandwiches, and salad boxes. In the majority of cases, the labels displayed the fillings but did not list all of the ingredients or the type of bread or spread used. However, in one large primary school which was fairly advanced in terms of the recommendations, the labels also included the ingredients of the dish. Occasionally, the filling labels also bore the logo of the school meals service. Apart from yogurts and milk, nutritional information was not provided for other foods.

7.6 In many of the schools, pupils were observed asking catering staff what some of the foods were, particularly in terms of hot meals and puddings. Some pupils mentioned that

they would like more labelling on the food that provided more information on ingredients. This included, for example, the type of bread and spread used in sandwiches rather than just the main filling. Occasionally schools have a sample table, which includes a sample of all dishes on the menu that day, and cards displaying the names of the dishes. This was to make pupils aware of what the different options were called, and what they looked like.

7.7 There was wide variation among case study schools in terms of how menus were used. In one medium sized primary school, parents of primary 1 pupils were invited to school to attend a presentation by the Head Teacher and head cook about schools meals and were given a folder containing menus and other information to take away. Parents were also made aware of any changes to the menus, as they were forwarded new menus when they were introduced. Practice in other primary schools ranged from menus being sent out annually, intermittently or not sent out at all. Where menus were distributed, pupils reported that in most cases they did not keep them to refer to. Pupils mentioned that it was only occasionally that their parents would use the menus to inform children of weekly or daily choices. In secondary schools, menus were not usually provided to parents.

7.8 Monthly or daily menus were displayed in a number of schools, but not all. Where menus were displayed, they were occasionally displayed where pupils queue, but more often in the dining room close to the serving counter and rarely in other parts of the building. One secondary school did report plans to display the menu during the morning, on a plasma screen in the entrance foyer. In another secondary school, where the menu was decided only a day in advance, the choices were read out in the morning in the daily bulletin.

7.9 The placement of the menus is important, as in many schools, pupils have to choose to join a separate queue dependent on the type of meal they want. When the menus are displayed at the point of serving, pupils often have to choose between separate queues before knowing what is available. In a few primary and secondary schools, the menu boards were empty, out of date, or incomplete. Staff and pupils confirmed that this was not unusual.

7.10 Price lists were also in evidence in some dining halls. However, they were often placed out of the way where pupils were sometimes unaware of them. Some of the price lists were out of date, showing items no longer available or old prices, or incomplete, showing prices of some items but not all. At the same time, in some secondary schools, there were adequate menus and price lists that displayed all the available options.

7.11 The menus and price lists were also used to encourage healthy choices. One secondary school offered meal deals which were designed to encourage pupils to try new foods and eat balanced meals. Pupils received reward points for choosing the healthy meal deal, and could accumulate these points to receive a prize. The details of this scheme, including the foods on offer and the subsequent points were prominently displayed in the dining hall in colourful posters.

Presentation

7.12 In secondary schools, which were generally larger and had dining areas with more space than primary schools, there were often separate counters for hot meals, salad bars and hot snacks. Where there was one serving area, food tended to be separated along the counter, with hot food at one end and the other items at the opposite end. In some cases, where space was more constrained, some items were behind the serving counter, and so were less visible

to pupils. In a number of schools, items such as home baking, crisps, confectionery, yogurts, and fruit were served on tables, often close to the paying areas. Drinks were served in fridges, chillier cabinets, vending machines, or on trolleys. One large primary school offered a pick 'n' mix service (other than for the main meal) with the remaining options being placed on individual counters which pupils could walk past and decide what they would prefer.

7.13 There were various ways in which food was served. In some schools, meals were served on plastic trays with compartments for individual food items. In others hot meals were plated. Often fast food and sandwiches were served in similar packaging to that in which it would be served in takeaway restaurants and sandwich shops. Soup was often served in polystyrene cups. Salad and raw vegetables were sometimes plated; sometimes in large bowls from which the pupils helped themselves; or served in individual plastic containers. Fruit was often presented whole in large bowls in various locations that were not always accessible by pupils. Small portions of fruit such as grapes were usually packaged into individual helpings. The individually packaged fruit tended to be much more popular and whole fruit in bowls was rarely chosen.

7.14 Hot food was considered to look appetising in most schools. Where the food did not look appetising, pupils cited the following reasons: the containers it was served in; being unable to see the food clearly; being unable to identify vegetables; or the food itself looking unappetising. Hot snack foods were sometimes described as looking greasy. Fruit could be of variable quality and could look unappetising. Most often this was because the fruit was past its best and overripe, although under-ripe fruit, such as green bananas, was observed in at least one school.

7.15 The Head Teacher of one large secondary school said she felt the presentation of food had generally improved since the publication of *Hungry for Success*.

Incentivising healthy choices

7.16 Various methods of incentivising healthy choices were observed including:

- Pricing - healthier options priced more cheaply than less healthy ones
- Meal deals - meal deals including healthy items as standard; salad and/or vegetable portions free with main dish hot meals
- Availability – increase in fruit available; introduction of salad bar; a 'healthy' vending machine selling pieces of fruit, sandwiches and wraps
- Layout changes - more prominence given to healthy foods in serving layout

7.17 Often measures to incentivise healthy choices were not consistent or did not fully address all aspects of the issue. For example, in one small primary school, healthier potato options were priced more competitively (for example chips and roast potatoes were more expensive than boiled or baked potatoes). However, the higher and lower fat options were not available on the same day. Additionally, fruit and yogurts were cheaper than most puddings, but more expensive than home baking. In a medium sized secondary school, salad or a vegetable portion was free with a main meal, but this was not advertised and pupils did not appear to be aware of this option. In another secondary school, although fizzy drinks were not available in the dining room, they could be bought from a vending machine in the adjoining hall which was used as a spill-over eating area.

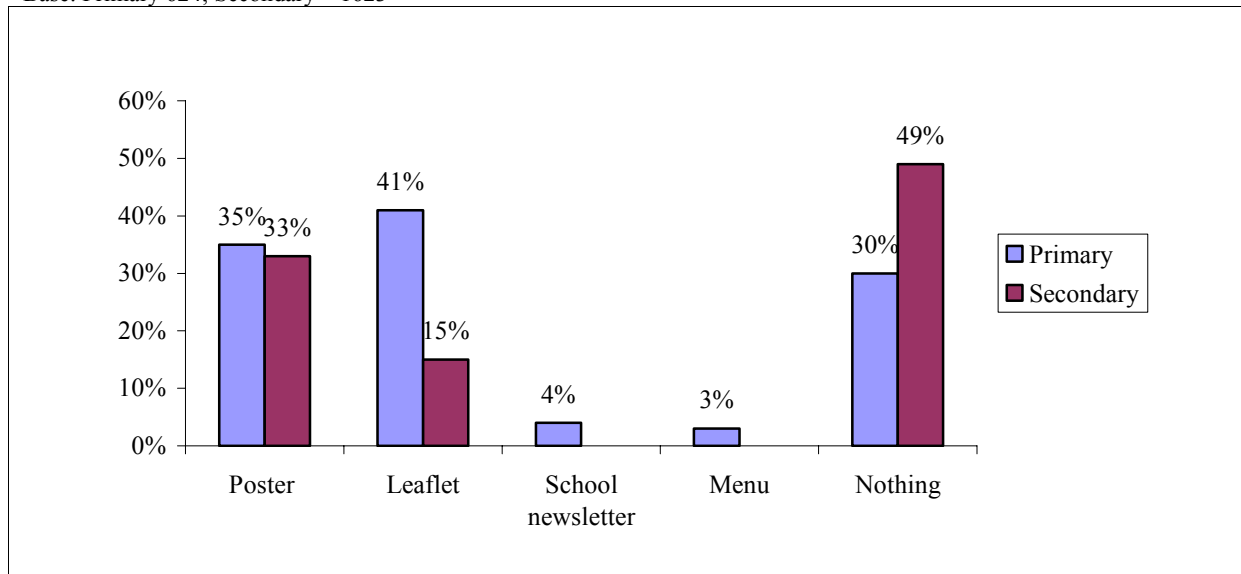
7.18 In other cases, attempts had been made to encourage pupils to choose healthy options, but appeared not to be working as intended. In a medium sized secondary school, the price of chips had been increased and the portion sized reduced. However, rather than pupils choosing other options, they now bought chips from the local chip shop which they considered gave better value for money. In the same school, although healthier choices were moved closer to the front of the queue, pupils were observed by-passing these choices routinely and choosing less healthy snack items that were positioned further away. A small secondary school had offered a healthy meal deal for a set price, but when only one pupil tried it, it was quickly abandoned.

7.19 Some schools did not appear to be incentivising healthy choices. For example, in a small number of schools salad options were few or less visible than less healthy options. In a medium sized primary school, we observed there were no rules, pressures, or incentive for pupils to take vegetables with main meals, and so very few pupils did. One primary school had formerly operated a healthy eating scheme with stickers awarded to pupils for healthy choices. However, since the measures to implement *Hungry for Success* had been introduced by the local authority, this scheme had been discontinued in favour of standard menus which although reduced the number of less healthy choices, also appeared to pupils to offer less choice and flexibility: “There is changes and the whole thing seems so much more restrictive” (catering staff, primary school).

7.20 Both primary and secondary school pupils were asked in the questionnaire if they had seen any advertising in the case study schools promoting changes to the school meals service (see Figure 7.1). As the implementation of the recommendations is currently taking place in primary schools, it is perhaps not surprising that more primary than secondary pupils had seen some form of materials advertising the changes. Just under half the secondary pupils had not seen any materials (49%) compared with 30% of primary pupils.

Figure 7.1: Have you seen a poster, a leaflet, or anything else about changes to school meals in your school?

Base: Primary 624; Secondary – 1623



Source: case study school pupils' attitudinal questionnaires

CHAPTER 8 IN-SCHOOL MANAGEMENT OF SCHOOL MEAL PROVISION

8.1 This chapter summarises information on how the school meals service is managed including: how and where food is prepared; numbers of catering staff at the school; supervision in the dining room; training received by catering staff; and the extent to which pupils, parents and staff are consulted about the school meals service. As this research was conducted solely within the school, the research is limited in the extent to which it can comment on the management of the school meals service by the Local Authority.

8.2 Relevant *Hungry for Success* recommendations include:

Recommendation 8: Schools should consult with pupils on a regular basis on the provision of school meals

Recommendation 13: When education authorities and schools are examining the structure of the school day, the lunchtime experience should be part of that consideration

Recommendation 14: In line with the agreement set out in *A Teaching Profession for the 21st Century*, education authorities should consider deploying classroom assistants and dining room assistants to undertake a supervisory role in dining rooms

Recommendation 15: Senior management within schools should strongly support and endorse their school meal provision as part of the whole-child approach

Recommendation 18: Future design, layout and usage, along with other factors such as décor and background music, should be considered by all schools, with significant pupils' input and programmes for change drawn up

Recommendation 22: All schools catering and dining supervisory staff should undertake appropriate training, for example the Royal Environmental Health Institute of Scotland Food and Health training course (currently under development) as part of their programme of development. Interested parents, carers and teachers should also be encouraged to undertake training in food and health

Preparation of school meals

8.3 In most of the schools, the majority of food was prepared on site. The types of foods cooked or prepared on-site included main meals, soup, sandwiches, salads, sauces, cakes, and occasionally pizza. In a number of schools, snack meals including pizza, burgers and hot dogs, were bought in. Some catering staff commented on the length of time required to prepare foods from scratch, and how this had affected workload. This included preparing cold options such as sandwiches, salads, and individual fruit portions.

8.4 Closer inspection of the recipes did reveal that some foods cooked 'from scratch' often included pre-prepared ingredients. For example, recipes for vegetable or lentil soup often included raw vegetables but also included adding bouillon cubes for flavour, rather than

making stock from scratch. However, in some cases soup was made using pre-prepared soup mix with little or no fresh ingredients added.

8.5 Some catering staff said their kitchens were sufficient for their needs and provided all of the equipment they required. At the same time, some cooks expressed the need for more preparation space and chilled storage space, particularly where more food was being prepared from scratch. A number of inadequacies were reported. These included:

- lack of equipment such as steamers to enable fish, for example, to be cooked in a healthier way
- older equipment that was sometimes prone to breaking down
- poor layout and design that caused additional work for staff or made preparation or serving harder
- lack of ventilation in the kitchen
- lack of staff space and locker space

Supervision in the dining room

8.6 A range of staff and pupils supervised school meals at lunchtime. These included: Head Teachers; members of the senior management team; other teaching staff; classroom assistants; catering staff; janitors and senior pupils. These individuals supervised the queues, including the flow of pupils into and out of the dining room and in the eating area, to promote good manners and ensure good behaviour.

8.7 As a general rule, there was more supervision in special and primary schools, for younger children and for those who needed greater assistance. Where the best behaviour was observed in the dining halls, in both primary and secondary schools, this was often because the school had an ethos that encouraged good manners and behaviour. When this was the case, pupils were on occasion observed clearing up after themselves and clearing spills without being prompted, as well as helping to clear the multi purpose dining area at the end of the lunch period.

8.8 Greater levels of supervision were associated with better behaviour, as was the involvement of more senior teaching staff. Conversely where there was little supervision, or when it was primarily undertaken by older pupils or catering staff, rowdy and more chaotic behaviour was often the result.

8.9 Where possible, catering staff in primary schools tried to supervise what pupils were actually eating. For example, some supervisors walked around the tables and encouraged pupils to eat their meals and leave as little waste as possible. In one primary school however, the head cook reported that some parents had requested this, but emphasised the difficulty of doing it when pupils refused to eat vegetables and other healthy options.

Catering staff

Numbers of staff

8.10 The numbers of catering staff varied according to the school roll and whether the kitchen was an output kitchen. In most cases, the numbers of catering staff were considered adequate, although occasionally some head cooks had to work additional hours to keep up to date with management tasks such as bookkeeping, or to be involved in operational tasks rather than managing the kitchen. Additionally, some catering staff had to work extra hours to ensure all their tasks were completed. In one small secondary school, the hours of the head cook and the overall number of catering staff had recently been reduced, and were about to be reduced further as the summer term approached and demand fell.

Training of catering staff

8.11 Most head cooks held City and Guilds qualifications. Occasionally, head cooks in one or two smaller schools were unqualified, instead having gained experience 'on the job'. In one instance, the possibility of gaining qualifications had been discussed with an unqualified head cook when she took up her appointment in a small secondary school, although this had not ultimately happened.

8.12 The extent of other training provided to catering staff varied, though often was not wide-ranging. Most staff had attended health and hygiene courses. Other courses attended by some staff included customer care, health and safety and 'Environmental Institutions'. There were few examples of specific nutrition training being provided. One or two cooks mentioned that they 'knew what was good for you' and had gained this knowledge through experience both in and out of work. One cook did not think knowledge of nutrition would help her in her job day-to-day.

Awareness of changes in response to Hungry for Success

8.13 Implementation of the *Hungry for Success* recommendations was scheduled to take place in all publicly funded primary and special schools by December 2004 and in all publicly funded secondary schools by December 2006. While most primary school head cooks knew of the changes because some at least have been introduced; the head cook in a special school had only heard of *Hungry for Success* through her contact with other school cooks. At the time of fieldwork, no changes had been made and she had not heard of whether the council planned to make changes or not in the school.

8.14 Where changes to menus and portion sizes had been introduced (usually in primary schools) head cooks had attended training courses designed to introduce them to the changes. Where changes had not yet been introduced (mainly in secondary schools) knowledge of *Hungry for Success* was often limited, with head cooks aware that changes would be introduced in the future, but having little knowledge of the detail of what they would involve and how the changes would affect them. Conversely, in one secondary school where the head cook was relatively well informed, she believed most of the recommendations were already in practice and little further change would be required.

8.15 Knowledge of *Hungry for Success* among other catering staff was generally limited. At times, catering staff were apprehensive, believing the changes might be too prescriptive

and limit their ability to provide healthy choices. Others thought it would be difficult to encourage pupils to accept the changes, and that introducing too many changes at once may lead to a drop in school meal uptake.

Consultation

8.16 Within the case study schools, few instances of consultation between local education authorities and schools on the implementation of *Hungry for Success* were identified. However this is not to say that consultation has not been undertaken by authorities. Clearly research was carried out only among a small number of schools, and not at all among education authorities. One head cook who was new to her post and had not been consulted directly, believed that the menus had been trialled and catering staff had been consulted in some schools within the local authority. Another head cook had made further changes to the new recipes in consultation with the local authority.

8.17 Head Teachers and other teaching staff often complained about the lack of consultations, and felt that Catering Services were too separate from the rest of the school administration. Evidence from one large primary school was that there was little dialogue between teaching and catering staff about food or the dining room environment: Teachers in a special school said they had made suggestions about improving the menus to catering staff, but those changes were not implemented. One Head Teacher felt his ability to influence the service was limited as demonstrated by his lack of involvement in the recent appointment of the head cook:

“I was not consulted about the advert, wasn't involved in the short leeting or the appointment. I had absolutely nothing to do with that” (Head Teacher , secondary school).

Consultation with pupils

8.18 Pupils were consulted by individual case study schools on matters such as food choices and the dining environment. Catering staff occasionally consulted pupils on particular products. For example, in one school, staff were developing ‘fruit smoothies’ and intended consulting pupils on the specific flavours. At times, feedback on food choices was gained indirectly. One head cook reported that catering staff listened to comments being made about food and also took note of what was eaten and what was left in order to judge what dishes were popular. Refurbishment of dining areas had prompted consultation with pupils in a few schools. In one, pupils were asked about colour of paint, and in the other, they were consulted on a range of issues related to school meals.

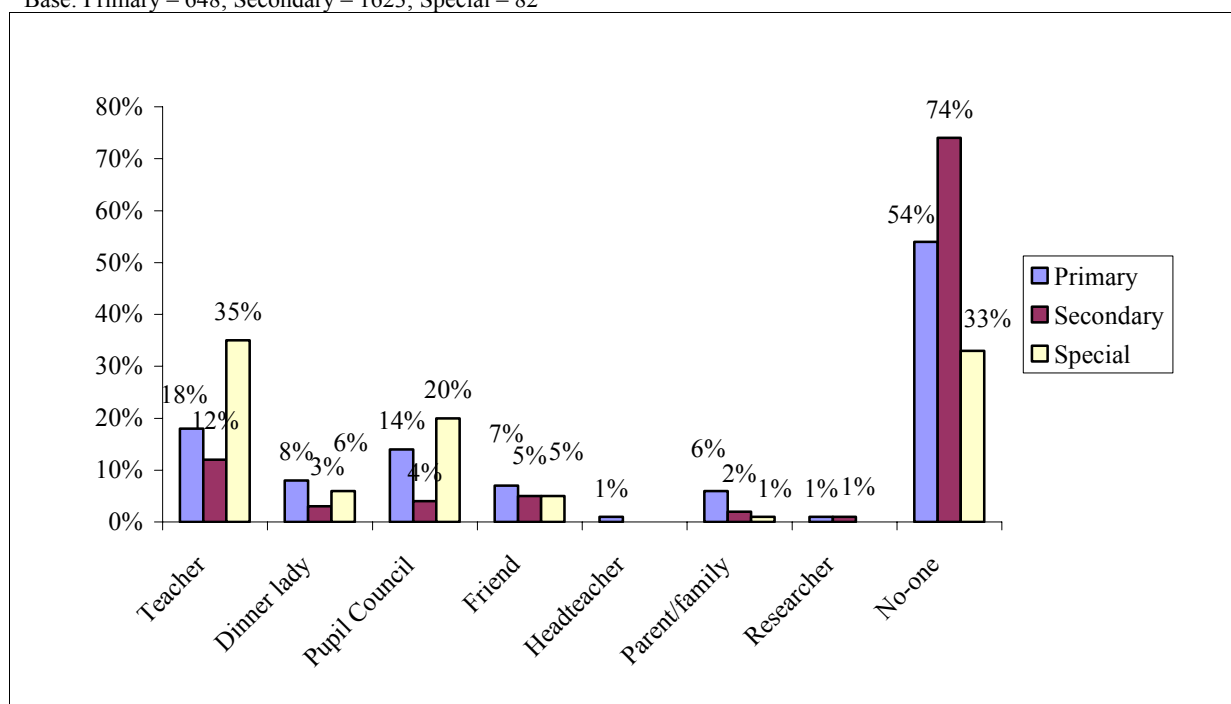
8.19 Where pupil councils existed, these were most often used as a method of consultation. In one case, consultation took place regularly through formal planned meetings. Elsewhere consultation was infrequent, and in at least one case, had not happened for some time. Where there were no pupil councils, there were sometimes intentions to introduce these and it was thought to be useful to have the input of Catering Services into the creation of these groups. The extent to which consultation went beyond the councils often depended on the pupil councils themselves. For example, in one school all pupils had been asked their views on school meals by the pupil council, whereas in another school, pupils not involved with the

pupil council said they had not been consulted in any way. Pupil councils on some occasions were proactive in taking suggestions for improvement directly to catering staff.

8.20 As well as qualitative discussion with pupils about levels of consultations, pupils in case study schools were asked in the questionnaire if they had ever been asked for their opinions about school meals before the current research had taken place (see Figure 8.1).

Figure 8.1: Has anyone at school every asked you what you think about school meals? (% pupils)

Base: Primary – 648; Secondary – 1623; Special – 82



Source: case study school pupils' attitudinal questionnaires

8.21 The results indicate that pupil consultation is much more common in primary than secondary schools, although it is most common in special schools. Just under three quarters of pupils (74%) in secondary schools said they had not been asked what they thought about school meals, compared with 54% of primary pupils and 33% of special school pupils. These results confirm the qualitative findings that in primary schools and in secondary schools in particular the level of consultation is not high and could be increased or improved. The most common forms of pupil consultation were with teachers or pupil councils.

8.22 In primary schools, the level of consultation with pupils varied by stage, with older pupils being consulted more than younger pupils. For example, 76% of primary 5 pupils said they had never been consulted about school meals, compared with 48% of primary 6 pupils, and 37% of primary 7 pupils. Around a third (37%) of primary 7 pupils had been asked by a teacher about their opinions of school meals compared with 11% of primary 6 pupils and 6% of primary 5 pupils. Dinner ladies had asked 15% of primary 7 pupils about school meals, compared to 6% of primary 6 pupils and 3% of primary 5 pupils. The older pupils had also been more involved in pupil council consultations, as 18% of primary 7 and 17% of primary 6 pupils had been asked for their opinions by a pupil council as opposed to 5% of primary 5 pupils.

8.23 There were not as many consistent age differences in secondary schools, although it appeared it was more common for S4 pupils rather than other pupils to be consulted (83%).

CHAPTER 9 FREE SCHOOL MEALS AND PAYMENT SYSTEMS

9.1 This chapter outlines procedures for paying for meals and for claiming free school meals at the time of the baseline research, as well as summarising pupils and teachers' views on free school meals and payment systems. Relevant *Hungry for Success* recommendations include:

Recommendation 9: *Processes maximising anonymity for free meal recipients should be explored as a priority in all schools. Primary schools should review their ticket allocation practices to ensure anonymity for free school meals is maximised and education authorities should adopt early introduction of a school meal application for multiple use cards, in particular in the secondary schools*

Recommendation 10: *As part of the introduction of card systems, education authorities should ensure there are sufficient validators in easily accessed areas within the school, not only in the dining room, and that they are easy to use*

How do pupils pay for their meals?

9.2 We found only a small number of instances where pupils paid catering staff directly with cash (or free school meals tokens) for school meals. Handling of cash was more usually separated from the serving of food. This was done in different ways. For example in primary and specials schools cash was variously:

- handled by the school office on a weekly basis
- exchanged for a token before entering the dining room on a daily basis
- an informal 'slate' system was operated by the cook, whereby payment could be made at the end of a week or next day if money was insufficient on day of purchase

9.3 More often in secondary schools cashless payment involved the use of swipe cards. Usually these were issued to pupils when they began schools, and were topped up by pupils through validation machines situated in dining rooms or elsewhere in the schools. In one or two schools, there were complaints about the lack of machines and the queues at these machines. One reason for introducing the cards was to speed up payment in the dining room. While in general catering staff confirmed this was the case, in at least one school the Head Teacher did not find this had happened in reality.

9.4 Swipe cards were popular among younger pupils, although as pupils grew older their novelty value tended to decrease. As well as the appeal of cards diminishing, pupils often lost the cards, though this was not noted as a problem in all schools. Where pupils did lose cards, replacement cards often had to be paid for, which acted as a disincentive for pupils to replace them. In one school, a cash payment counter was introduced due to the number of pupils losing cards. In other cases, pupils who have lost their cards cited this as a reason for going outside to buy food with cash. In one school, pupils remembered their card details and were able to obtain meals without using the actual cards.

9.5 To improve the popularity of swipe cards and to encourage pupils to look after them and keep using them, some schools currently have or are planning to introduce cards such as

‘Young Scot’ that provided discounts on travel, and some leisure facilities and high street shops, including fast food chains. However, in one school where the card was being used and discounts were being offered, some pupils still reported this was not enough of an incentive to make them chose to eat in school.

9.6 Pupils using swipe cards also allows for information gathering. For example, it is possible to collect information on the types of food that is sold and in particular on individual pupils’ choices. We did not find widespread evidence that this information was being used by individual schools. It had been used by one school, for example, when parents contacted the school to express concern about their child’s diet or where there were concerns about bullying or misusing cards. Another school was considering the possibility of using the information to contact parents and discuss pupils lunch choices, especially where they suffered concentration lapses in afternoon classes.

How much do school meals cost?

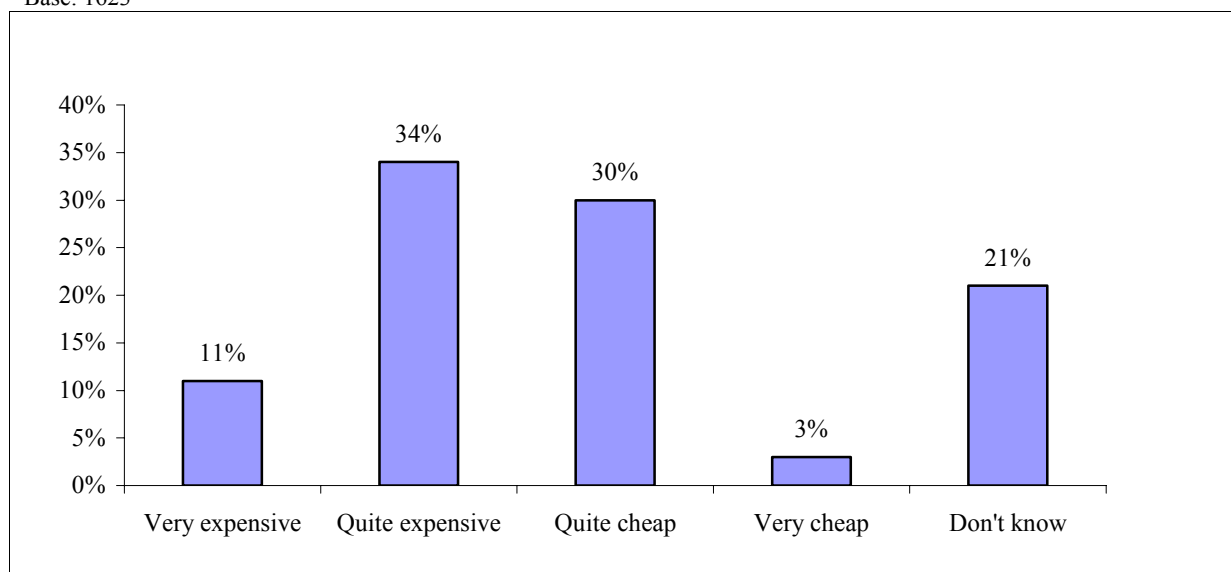
9.7 Meals prices varied across schools, where some schools have fixed priced meals, or meal deals and others have a combination of meal and individual item prices. Fixed meal prices were usually set to the value of a free school meal and typically ranged from £1.35 - £1.85. Hot and cold fixed meal deals were offered, while the actual items included in the meals varied. Often there was a choice between individual items within the categories of food included in the meal. For example, pupils could choose between soup and a pudding or between yogurt, fruit or a pudding.

9.8 Pupils in different schools had differing views about the value for money of their school meals. Some pupils thought the meals offered good value for money, while others complained that prices were too high. These complaints related to individual items being priced highly, or to the overall amount spent on lunchtime food each day. Pupils in a large secondary school said that the local chip shop offered price promotions on their lunchtime food, which represented better value for money than school meals. In one small secondary school, pupils reported prices had increased significantly recently. The Head Teacher of a primary school in the same local authority area also expressed the view that prices had increased rapidly in the past few years.

9.9 In the questionnaire, secondary pupils in case study schools were asked specifically about whether they considered the cost of school meals in their school to be cheap or expensive (see Figure 9.1). Just over a fifth of pupils (21%) said they did not know. Among the remaining pupils, opinions were fairly mixed, with 44% of pupils saying school meals were either very or quite expensive and 33% saying they were either very or quite cheap. This confirms results of both the qualitative and quantitative research discussed previously in Chapter 4 (What pupils eat).

Figure 9.1: Thinking about how much school meals are at your school, would you say they are... (% secondary pupils)

Base: 1623



Percentages do not all add up to 100 due to rounding

Source: case study school pupils' attitudinal questionnaires – secondary schools

Free school meals

9.10 The School Census showed that the proportion of pupils entitled to free school ranged in the selected primary schools from 40% to less than 5% and in the case study secondary schools from 45% to 5%. In both cases, the average free school meals entitlement across case study schools was close to the average across all primary and all secondary schools. In both special case study schools, free school meals entitlement was relatively high.

9.11 However, not all pupils entitled to free school meals actually claimed them. A Head Teacher in one school suggested this was due to the application process or because parents felt an obligation to provide lunch for their child.

9.12 According to the School Census, most secondary and half of primary schools included in the research operated an anonymised system for free school meals. However, the current research found that this was not always the case in practice. For example, in one primary school identified as having an anonymised system, the current practice differed.

9.13 In primary and secondary schools where swipe cards were not in use, those entitled to free school meals could generally be identified easily. For example, free school meals tickets were issued in class; pupils entitled to free school meals were identified on lists at the front of

queue; and payment was made using tokens collected at the school office rather than cash. As a consequence pupils, particularly in primary schools, were often aware of who was entitled to free school meals.

9.14 Where swipe cards were used, principally in secondary schools, those entitled to free school meals could not easily be identified, although other pupils might notice that they did not insert money into the machine to top up their card and on the (not infrequent) occasions when they lost a card, it would become apparent at the till. In one primary school that operated a swipe card system, pupils mentioned that free school meals entitled pupils could be identified by the fact that they had the same amount of money automatically put on their card every day.

9.15 Despite this lack of anonymity it did not appear, through the qualitative research, to be the case that there was much of a stigma surrounding free school meals entitlement. Head teachers and catering staff in schools where receipt of free school meals could be easily identified did not believe this caused problems or that pupils attached any significance to such entitlement. Pupils themselves generally confirmed this view; including those who were in receipt of free school meals. Pupils talked in a very 'matter of fact' way about entitlement simply being based on whether parents worked or not. One or two in this latter group were pleased that entitlement relieved the burden on their parents of paying for school lunches or preparing packed lunches. However, this is not to say that there is not a stigma at all in relation to free school meals, as the presence of a stigma may explain why some parents chose not to take up the entitlement.

CHAPTER 10 WHOLE SCHOOL APPROACH TO HEALTHY EATING

10.1 The chapter summarises findings on the broader provision of food and water within the school (e.g. tuck shops, breakfast clubs, free fruit and water), as well as findings on health and the curriculum. Relevant *Hungry for Success* Recommendations include:

Recommendation 5: *All schools should review their current practice in establishing links between learning and teaching on healthy eating in the curriculum and food provision in school*

Recommendation 7: *Education authorities should promote partnership approaches and schools develop mechanisms to develop partnership working*

Other in-school food provision

Tuck shops

10.2 There were tuck shops, or at least a snacks trolley, in most of the case study schools. Generally these were open every day at morning break and occasionally at lunchtime, when they competed with the school meals service. When run at lunchtime, such shops sometimes offered reduced numbers of items and did not open until the majority of pupils had been served their main meal.

10.3 The number of products on offer at the shops varied from school to school, with some limiting the shops to one or two items, and others such as one secondary school where almost the same range of foods (with the exception of hot meals, pizza and chips) was sold at break time as for lunch time school meals. Typically, tuck shops in secondary schools sold a combination of fizzy drinks, crisps and confectionery. In some schools, cereal bars were also included as a healthier option. It was more likely for healthier options to be sold in primary schools. However, not all attempts at including healthy options worked. In one case, a primary school had tried offering fruit, but few pieces were bought and most was wasted.

10.4 Tuck shops were run variously by the school meals service, catering staff, teaching staff and pupils. The extent to which they were used varied and appeared to be due to a number of factors such as the products on offer; the number of days open and the demand from pupils. Some secondary and special schools used the profit generated by the tuck shop to boost school funds. One Head Teacher of a large secondary school that operated a busy tuck shop suggested the profit generated removed the need for additional fundraising for the school. In another secondary school, where consideration was being given to closing the tuck shop, the teacher who ran the tuck shop suggested that *Hungry for Success* funding should recompense the school for significant loss of funds. Clearly where tuck shops are used for fundraising, considerations of improving health will conflict with the need to sell popular, less healthy items.

10.5 However, catering staff felt that the existence of unhealthy tuck shops diminished the positive effects of the healthy school meals service. They were especially frustrated as they

felt they were working hard to encourage pupils to try the new recipes which did not include salt and sugar, and yet the pupils could buy high sugar snacks from the tuck shop:

“..it is defeating the purpose by having a tuck shop and selling them sweets and crisps but then not giving them sugar and salt in their food” (head cook, secondary school).

Vending machines

10.6 A number of secondary schools had vending machines, located either in dining rooms or adjacent areas. Most of these sold drinks, in particular fizzy drinks, crisps and confectionery. There were also a small number of ‘healthy’ vending machines that sold sandwiches and fruit, although these did not appear to always be well-stocked. One secondary school had removed a fizzy drinks vending machine, but attempts to replace it with a machine selling water had so far foundered due to the cost to pupils – it would have to be subsidised or sponsored to make it affordable. The qualitative research with pupils did indicate that the decision to remove vending machines from some secondary schools was not particularly popular:

“It’s annoying – they took away the can machines and you can’t get a drink in school” (pupil, secondary school).

10.7 Occasionally schools benefited from the profits of vending machines. However, in one school which relied on profits from the tuck shop for fundraising, vending machines were in direct competition as they were not in the school’s control.

Breakfast clubs

10.8 Not many of the schools operated breakfast clubs though some schools were considering introducing one, and others had run a club in the past but this had now been discontinued. However, in a large primary school which did run a breakfast club, it had been very well received and was very popular among pupils. This club offered breakfast at no charge to pupils.

10.9 One small secondary school had planned to open a breakfast club but found the logistics of doing so too difficult. In another secondary school, a breakfast club was run by teaching staff, and any profit made from the club was used to subsidise food discreetly given free to pupils with little money or to subsidise healthy food (e.g. fresh fruit). The teachers were conscious of the nutritional value of the food served but felt the most important thing was that pupils ate something. For example, pupils had requested ‘Pop Tarts’ and staff had debated whether or not to offer them, but in the end decided that a ‘Pop Tart’ was better than having no breakfast at all.

Health and the curriculum

10.10 In secondary schools, healthy eating and related topics such as health and exercise were taught through a number of different subjects including: home economics; personal and social education; physical education and biology. Younger pupils in SI and S2 in particular were given lessons on healthy eating in home economics. School nurses were sometimes involved in the teaching.

10.11 In primary schools healthy eating was taught variously through project work; annual healthy eating weeks and making posters on healthy eating. One primary school reported they had updated their curriculum this year to include weekly sessions on healthy eating. The emphasis in the teaching was on balance and choosing a healthy diet rather than labelling individual foods as unhealthy.

10.12 A range of teachers in one special school taught aspects of healthy eating. The subject was formally taught as part of health education to primary pupils and in home economics. Teachers organised food tasting sessions, such as of different fruits, to encourage wider choice. Pupils were encouraged to write poems about food in English as part of national poetry day. These poems were displayed in the dining hall. The science teacher had helped pupils plant and grow fruit trees, rhubarb and herbs in the school grounds. Older boys in particular were encouraged to eat healthily by the football coach.

10.13 Pupils in all types of school generally appeared to have a reasonable knowledge about healthy eating. For example, when asked about their ideal lunch, pupils did appear to be aware of what foods were healthy and unhealthy, even if they did not always choose the most healthy options:

“You understand enough but most folk don't follow it because pie, burgers and chips taste that good” (pupil, secondary school).

10.14 The pupils in the primary school where teaching emphasised balance rather than focusing on the health effects of individual foods challenged the researcher when they were asked to distinguish between healthy and unhealthy choices.

10.15 At the detailed level, when considering which specific foods were more or less healthy, some products such as fish fingers, crisps, and pasta, did cause confusion or pupils said the foods could be either healthy or unhealthy. For example, one special school pupil said that pasta could be unhealthy sometimes depending on how it is made and who makes it:

“..some chefs put grease on it and make it fatter but if my mum was making it she would only put a wee drop of grease in it and make it nice”.

10.16 In some cases, pupils said they learned about healthy eating at home. A number of pupils said they felt healthy eating was really common sense and occasionally questioned the need for it being included in the curriculum. However, there were also other pupils who called for more teaching of healthy eating.

Policies and strategies to promote health

Free fruit initiative

10.17 In primary schools, P1 and P2 pupils received fruit each day as part of the Free Fruit initiative. In some cases, older primary pupils were also given free fruit, although less frequently. Pupils struggled with the larger sized fruit which had to be cut up by staff. Often, the fruit was prepared by staff and presented to the pupils in individual portions. A Head Teacher said that dried fruit had been tried as an alternative to fresh fruit, but this had not proved popular. In one of the special schools, which included both primary and secondary age pupils, the Head Teacher said that the fruit was not provided automatically, until the school asked for it. It was now provided to all primary aged pupils in the school.

Water provision

10.18 Most of the primary and secondary schools supplied water to pupils. Water fountains or coolers were placed at various points around schools. Some secondary schools reported strong demand from new pupils moving from primary schools where they were used to water being provided. The extent to which pupils were allowed to drink water in class varied from school to school. Some were provided with water bottles and allowed to fill them up and drink as required. Drinking water in class was sometimes left to the discretion of teachers. While some allowed this, not all did; others only did so at certain times, such as the start of the class.

Rules on consumption

10.19 While pupils were sometimes allowed to drink water in class, they were generally not allowed to eat during lessons. Occasionally rules were set on food and drink consumption at other times. For example, one school had banned the consumption of fizzy drinks and flavoured crisps during break times.

10.20 However, staff did point out that schools could not control all aspects of behaviour. For example, consumption of specific food and drinks could be banned at break times and removed from sale in schools, but they had no control over contents of packed lunches. Instead, one secondary Head Teacher had written to parents suggesting healthier options for packed lunches. In a different secondary school, uptake of school meals was particularly low and many pupils ate outwith the school. The Head Teacher said it was extremely difficult to prevent pupils leaving school at lunchtime. There were a large number of alternative, often relatively unhealthy, options for eating out close to the school. This meant that, in reality, promoting healthy eating through changes to the school meals provision would have limited effect.

Health promoting strategies

10.21 A few schools were working to a specific strategy for health promotion. One primary school was at the beginning of a three year development plan to become a health promoting school. Another school was part of a collaborative group with other schools in the local area

whose broader work included health promotion for both pupils and teachers. This collaboration had prompted changes to the curriculum.

10.22 Health promotion was primarily undertaken by the inclusion of healthy eating in the curriculum, described in the previous section, and through the school meals service itself, mainly covered in Chapter 4.

CHAPTER 11 SUMMARY AND CONCLUSIONS

11.1 In this section, the key findings of the report in relation to the *Hungry for Success* recommendations are summarised. Recommendations have been commented on only if they are within the parameters of the research (see Annex 1) and as far as possible are validated by more than one element of the research. Additional commentary on some points that, while not specifically relating to individual recommendations, are still pertinent to *Hungry for Success* has also been provided. Finally, conclusions are drawn about the relative progress made by the case study schools at the time of the research on the various recommendations.

Summary of progress against recommendations

Recommendation 2: *Each education authority should develop a policy for delivering, in partnership with parents and carers, medically prescribed diets and appropriate provision for children with SENs*

11.2 As education authorities were not included in the research, it is not possible to comment on whether they have developed area wide policies for catering for children with special education needs. At the level of individual schools, catering staff reported they were able to provide for such needs as required, particularly in smaller schools and the two special schools. The research did not explore the extent to which parents or pupils controlled diets without the aid of catering staff, although this did appear to happen (anecdotally).

Recommendation 3: *The Scottish Nutrient Standards for school lunches should be adopted and education authorities and schools should have them in place in all special schools and primary schools by December 2004 and in all secondary schools by December 2006*

11.3 The parameters of the research mean it is not possible to comment directly on whether the nutrient standards themselves were being met in each individual school. However, generally it did appear that guidance on menu planning by food group was being followed both in terms of the types of food available and through the menus and recipes that had been introduced, especially in primary schools. This was the area that was the focus for most change in all sectors, but especially in case study primary schools. Changes were identified both in the types of food available and through the menus and recipes that had been introduced. This means that there was the *potential* for individual pupils in most of the case study schools across all sectors to have school lunches which met the nutrient standards.

11.4 The changes relating to the guidance were more systematic and prescriptive in case study primary schools than in special and secondary schools. In general, primary school pupils were given less freedom to make unhealthy choices than in the secondary schools included in the research. Menus had been changed in all of the primary schools included in the research, although in at least one the menus were not being followed exactly. In one of the two special schools, where recommendations were due to be implemented by December 2004, menus had yet to be changed and staff were unaware of when this would happen. Case study secondary schools, where the standards are yet to be introduced, varied in the extent to which the recipes and menus had been changed. Some had introduced a number of changes to the food served, while one had not made any such changes and did not appear to have

plans to do so. In many of the secondary schools, pupils still had scope to choose unhealthy options from the range of food available.

11.5 Recipes, with reduced fat and salt levels for example, had been provided by local authorities as part of the changes principally, though not exclusively, to primary schools. The recipes were not always meticulously followed by all school cooks. Guidance was also provided on portion sizes, although often catering staff did not follow the guidelines with individual pupils, instead relying on their experience of how much to serve. For example, those who could eat more or for whom staff believed lunch would be the only meal of the day were served more. Setting aside this in-school variation, in broad terms vegetable portions tended to be smaller and portions of meat-based dishes larger than recommended in the guidelines. Variations to recipes and to portion sizes were observed across all sectors, although the former was less prevalent than the latter.

11.6 The extent to which guidelines for the five food groups were being followed varied by food group. Broadly, primary schools were following the guidelines for group 1 foods (breads, other cereals and potatoes) although not always offering alternatives to fried potatoes nor providing bread on all days. In secondary schools, chips were offered more often than recommended.

11.7 In general, fruit and vegetables (group 2) were offered sufficiently often in all sectors, although hot vegetables in particular were hardly being eaten by pupils. Instead pupils often preferred salads and raw vegetables. More imaginative choice and presentation of vegetables may help to increase vegetable consumption. Although fruit was more popular than vegetables, the quality and presentation of whole fruit meant it was unpopular with many pupils, who preferred individual fruit portions. Younger pupils in primary schools struggled with larger whole fruits.

11.8 In general, milk and milk products (group 3) were on offer as recommended. The milk served in all school sectors was usually semi-skimmed. It would be possible in many schools for individuals to choose cheese every day as a main protein item, which is more than the recommended amount.

11.9 All schools in all sectors offered portions of food from group 4 (meat, fish and alternatives) every day and served red meat at least twice a week, in line with the guidelines. However, the quality of the meat was occasionally considered to be poor. Processed meats were offered more frequently than recommended in some primary and most secondary schools. Although fish was served as recommended in most primary schools and many secondary schools, it was rarely served more often and some schools served it less often. Oily fish was very rarely served in any schools, as this had proved to be very unpopular with pupils in most of the schools in which it had been tried.

11.10 Most primary, and several secondary schools, were following the guidelines on foods containing fat and foods and drinks containing sugar (group 5). However several of the secondary schools still served fizzy drinks, confectionery and crisps. In both primary and secondary schools, flavoured water and milk, often containing sugar, were on offer in an effort to get pupils to drink alternatives to fizzy drinks.

Recommendation 4: *School meal facilities should not advertise or promote food or drink with a high fat or sugar content*

11.11 In primary and special schools, there was no evidence of advertising or promotion of food or drink with a high fat or sugar content. Some advertising did take place in a few secondary schools, mainly for fizzy drinks and, occasionally, crisps.

11.12 Inadvertent, informal promotion of food and drinks containing high levels of fat or sugar sometimes happened in case study schools across all sectors due to the layout of food. This was often due to space constraints, but occasionally for other reasons, such as reported pilfering of confectionery leading to it being placed close to the payment till in one secondary school.

Recommendation 5: *All schools should review their current practice in establishing links between learning and teaching on healthy eating in the curriculum and food provision in school*

11.13 Although healthy eating was being taught in most schools in all sectors, we found little evidence of formal links being made between healthy eating in the curriculum and the food provision in case study schools. Only a small number of schools were working to specific strategies for developing healthy eating in the curriculum. Much of the teaching on the curriculum in secondary schools was through Home Economics, though it was also often included in Personal and Social Education, Biology and sometimes in Physical Education. Primary schools also undertook some teaching of healthy eating; they included it in the curriculum in various ways including through special projects, healthy eating weeks and making posters for display in the dining room. Catering staff were not involved in teaching about healthy eating, although occasionally school nurses were.

Recommendation 7: *Education authorities should promote partnership approaches and schools develop mechanisms to develop partnership working*

11.14 The majority of schools in the research reported no involvement in formal partnership working, although there were one or two notable exceptions. One of the special schools and a few others had close contact with the local authority, although this was usually the exception. The parameters of the research mean it is not possible to comment directly on the promotion of partnership working by local authorities.

Recommendation 8: *Schools should consult with pupils on a regular basis on the provision of school meals*

11.15 Because more changes had been made in the primary sector, more consultation had taken place with primary pupils than secondary pupils. There were some cases of regular consultation, although in most cases it was episodic.

11.16 Pupils were most often consulted about school meals through pupil councils. On some occasions the councils themselves undertook wider consultation with other pupils in the school. Aspects of school meals on which consultation took place were on food choices and the dining environment.

Recommendation 9: Processes maximising anonymity for free meal recipients should be explored as a priority in all schools. Primary schools should review their ticket allocation practices to ensure anonymity for free school meals is maximised and education authorities should adopt early introduction of a school meal application for multiple use cards, in particular in the secondary schools

11.17 Where they expressed an opinion, staff in case study schools across all sectors usually did not believe there was a stigma attached to free school meals in their own school. This view was for the most part confirmed in the qualitative research with case study school pupils, both those entitled to free school meals and others. As it was not possible to identify those pupils who were entitled to, but did not take up free school meals, the research was unable to explore whether lack of anonymity was a barrier to take up in the case study schools. It should be remembered that the views expressed in case study schools in relation to this, or indeed any other issue cannot be generalised to all schools.

11.18 Payments systems used by most case study primary schools allowed recipients of free school meals to be identified and there was not much evidence of practices being reviewed to ensure anonymity. A cashless payment card system was about to be installed in one primary school which was a pilot school in the area. It is not within the parameters of this research to comment on the extent to which education authorities have wider plans to introduce multiple use cards in schools in their area.

11.19 Most, but not all, case study secondary schools had ‘swipe’ cards that made it more difficult, though not impossible, to identify those in receipt of free school meals. A problem was reported with swipe cards in a few secondary schools with pupils losing their cards and choosing not to replace them. This had led to cash being accepted in some schools and on occasion was given as a reason by some secondary pupils for eating out of schools.

Recommendation 10: As part of the introduction of card systems, education authorities should ensure there are sufficient validators in easily accessed areas within the school, not only in the dining room, and that they are easy to use

11.20 In most cases where multiple use cards were in evidence, there appeared to be sufficient, accessible validators within schools. On occasions, pupils in a small number of schools reported insufficient validators and problems with queuing at validators to replenish their cards.

Recommendation 11: All schools should examine their seating and queuing arrangements to ensure that the social experience of lunch is maximised

11.21 In primary, secondary and special case study schools, most pupils considered lunch to be a social experience. Where lunch was viewed less favourably, this was due to limitations of space, or where dining rooms were multiple-use areas that also served as the school entrance or thoroughfare. In this latter case, pupils reported they felt ‘on view’ as they were eating. Such multi-purpose dining rooms occurred in a number of the primary schools in particular, though this was observed in one or two secondary schools as well.

11.22 Space was often constrained in primary case study schools, and there were often separate sittings for different year groups. On at least one occasion the school day had been restructured recently to enable separate lunchtime sittings to be introduced specifically to

overcome space constraints. However, this created its own problems. In a number of schools where there were separate sittings, pupils at later sittings had to sit where there was space rather than being able to sit with their friends. They also were less able to linger over their meals. This lack of flexibility in seating was a further reason why pupils viewed lunchtime as a less sociable experience.

11.23 In secondary case study schools lack of space was less of an issue for most and pupils could often spend as long as they wanted in the dining room after they finished eating, adding to the social experience. Space was constrained in a small number of case studies, and in a small number of others was sufficient only because a relatively large proportion of pupils ate out of school. Should uptake increase in the future, these schools would have difficulty accommodating more pupils. In at least one secondary school, pupils were aware of this and presented their choice of eating out partly as a necessity.

11.24 Some primary and secondary case study schools had made changes to their lunchtime queuing systems to improve the lunchtime experience. On at least one occasion in one primary school, the changes were made as a direct result of Hungry for Success. A number of the case study schools, even those who had taken some measures to address problems with queues, did experience noticeable queuing difficulties.

11.25 Queues were the place where indiscipline most often occurred at lunchtimes, in particular, though not exclusively, in secondary schools. This had the effect of diminishing the social experience of lunch for most pupils, who on the whole behaved positively in the dining rooms. As well as waiting times, poor behaviour in queues was also caused by congestion at key points in the queuing process and the (lack of) availability of popular choices. This latter difficulty often occurred in the primary and secondary schools where there were staggered sittings or where some pupils were given priority in the queues over others.

Recommendation 12: *To address queuing difficulties and in any review of the length of the lunch break, the following factors should be considered:*

- *Multiple service points*
- *More cash points in cash cafeterias*
- *Staggered arrivals of diners/separate sittings*
- *Pre-ordering facility*
- *Separate counter for collecting pre-ordered meals*
- *Delivery of pre-ordered meals to lunchtime clubs*
- *Examining the potential for additional outlets elsewhere in the school*
- *The needs of disabled pupils*

11.26 As discussed under recommendation 12, a number of schools did experience queuing difficulties. The current research indicated that most of the recommended factors had been considered, and changes introduced, by at least one school to address queuing difficulties. For example, one school had introduced a separate counter for the pre-ordered 'school packed lunches' and others had introduced milk or deli bars where pupils could buy drinks and other items.

Recommendation 13: *When education authorities and schools are examining the structure of the school day, the lunchtime experience should be part of that consideration*

11.27 On at least one occasion the school day had been restructured to enable separate lunchtime sittings to be introduced. It is not possible within the parameters of this research to comment on whether education authorities had systematically examined the structure of school days or if they had, whether they had considered the lunchtime experience as part of that examination.

Recommendation 14: *In line with the agreement set out in A Teaching Profession for the 21st Century, education authorities should consider deploying classroom assistants and dining room assistants to undertake a supervisory role in dining rooms*

11.28 A range of staff and pupils supervised school meals including: Head Teachers; members of the senior management team; other teaching staff; senior pupils and classroom assistants. Only occasionally were catering staff or janitors reported as having supervisory duties. The level, and as a consequence the effectiveness, of supervision varied across schools. As a general rule, there was more supervision in special and primary schools, and for younger children and those who needed greater assistance. Where supervision was most effective in both primary and secondary schools, this was often because the school had an ethos that encouraged good manners and behaviour. Supervision was most often of the queues and the flow of pupils in and out of the dining room, as this is where most poor behaviour appeared to occur. Supervision was also undertaken in some schools in the eating area to promote good manners and behaviour.

11.29 Occasionally, there was evidence of attempts to supervise schools pupils' choices, although these had not always been successful and staff highlighted the difficulties and constraints associated with doing this.

Recommendation 15: *Senior management within schools should strongly support and endorse their school meal provision as part of the whole-child approach*

11.30 With a few exceptions, the links between senior management within case study schools in all sectors and the school meals provision did not appear to be strong. Where senior management were involved, it was often in wider aspects related to supervision of pupil behaviour or to the physical environment rather than the food itself. The extent to which senior management could influence provision was not always great, given it was often controlled centrally by local authorities. That said, one or two Head Teachers took a close interest in provision, other teachers had tried unsuccessfully to influence provision while a small number of senior management teams appeared to show little interest in doing so.

11.31 The level of knowledge among senior staff about *Hungry for Success* and its recommendations varied across schools. Broadly, primary school Head Teachers had more knowledge than those in secondary schools (presumably due to the timetable of implementation) although this varied by individual school.

Recommendation 16: *Caterers should consider appropriate means of labelling food and methods of conveying information on content to pupils and parents. Through existing school communication channels, menus should be forwarded to parents at least once a term. Schools and caterers should consider presentation, marketing and pricing structures to incentivise healthy choices*

11.32 Usually, where food was labelled it related to the filling of sandwiches, although this did not always cover all ingredients, nor did it always extend to the type of bread or spread. Other foods, including hot meals, were not usually labelled. Pupils were often observed asking what food was, and some told us they wanted more labelling of food. However, there had been attempts to resolve this problem, with one or two case study schools having samples of the food on view with cards displaying the names of the dishes.

11.33 In primary schools, menus were forwarded to parents, although at the time the research was conducted this was not being done as frequently as recommended. Where menus were sent out, pupils said they rarely kept them. Only occasionally did parents use the menus to help their children make choices about what they would eat. Menus had not been sent out to parents of case study secondary school pupils.

11.34 Healthy choices were incentivised in a number of ways in all sectors, although sometimes such incentivisation was piecemeal. On a few occasions healthy options were placed more prominently, but more could have been done with the presentation of hot vegetables, salad and fruit options in particular in most case study schools in all sectors. In several schools across all sectors, posters appeared in dining rooms encouraging healthy eating, providing information on the five food groups, and promoting five a day to encourage the consumption of fruit and vegetables.

11.35 New primary school menus were designed to ensure the provision of balanced meals. One primary school had previously incentivised healthy choices through a pupils' points scheme. However, this was discontinued when new menus were introduced by the local authority that placed the emphasis on balanced meals rather than enabling choices to be made. Pupils and teachers reported preferring the original scheme. Some secondary schools offered meal deals, which were again designed to bring about the eating of balanced meals, as well as encouraging pupils to try healthy options.

11.36 Pricing was being used to incentivise healthy choices in a few case study secondary schools where healthier choices were cheaper than less healthy ones, or the portion size of less healthy options were reduced while the original price was maintained. In some cases when this did happen, pupils perceived the external options of the less healthy foods to be better value for money, due to cheaper prices or larger portions; this was given as a reason for eating lunch outside school.

Recommendation 17: *Improvements to the dining room to enhance its atmosphere and ambience, and encourage its use as a social area should be considered as a priority by local authorities and should be taken into account in their wider school estate planning. It is desirable, whenever possible, that a separate dining area should be provided*

11.37 It is not possible within the parameters of this research to identify the extent to which education authorities are considering the dining room specifically as part of their wider

school estate planning. Schools themselves are constrained in their ability to bring about changes to the dining room. Changes instigated by the education authority had taken place in one or two schools and were planned in one or two others.

11.38 In a number of primary schools, dining rooms were multi-purpose and this did appear to cause problems, in particular preventing pupils enjoying the social experience of lunch to some extent and in the lack of flexibility in redesigning the space or the seating.

Recommendation 18: *Future design, layout and usage, along with other factors such as décor and background music, should be considered by all schools, with significant pupils' input and programmes for change drawn up*

11.39 As discussed in recommendation 8, pupils were most often consulted through pupil councils. One or two schools that had recently made changes had consulted pupils specifically on design, layout and décor.

11.40 Background music was rarely heard in dining rooms, with the exception of one or two case study secondary schools. This was suggested by a number of pupils spontaneously, usually in secondary schools, as a way of increasing the social experience of lunchtime. Others agreed with the idea when it was suggested to them. However, pupils were often cautious about the introduction of music as they felt there might be arguments about what music should be played and that it would increase the overall noise levels in the dining room. Even without music, pupils in both primary and secondary schools did frequently say that dining rooms were noisy.

Recommendation 22: *All schools' catering and dining supervisory staff should undertake appropriate training, for example the Royal Environmental Health Institute of Scotland Food and Health training course (currently under development) as part of their programme of development. Interested parents, carers and teachers should also be encouraged to undertake training in food and health*

11.41 Most head cooks held City and Guilds qualifications, although a few in smaller schools head cooks were not qualified. Most other catering staff had undertaken health and hygiene courses. There were few examples of specific nutritional training being provided and food and health training was not currently provided. Catering staff, or at least head cooks, in primary schools had generally been provided with information sessions by the local authority to introduce the changes to menus and recipes.

Pupils' wider attitudes and diets

11.42 Clearly, school meals are only one aspect of pupils' diets and the food they eat both at lunch and other times are shaped by a number of influences.

11.43 In general, pupils appeared to have some knowledge of healthy eating and a few were, if anything, ahead of their schools in terms of the demand for healthy options; more often though, they did not appear to apply their knowledge to lunchtime choices. Some pupils in both primary and secondary schools appeared to eat more healthily in the evening than during

the day. Reported consumption of vegetables, for example was higher in the evening than at lunchtime in both sectors.

11.44 The majority of pupils in case study primary schools ate breakfast every day, mainly eating bread or cereals. It was not possible to determine whether this was the case for those in secondary and special schools as they completed diaries for only one day. Mostly breakfast was eaten at home; there were few instances of breakfast clubs being run by case study schools.

11.45 Across all sectors, a high level of fried, high fat or high sugar foods was reported as being consumed at lunchtime and in the evening, as well as during the day, particularly during the morning.

11.46 Tuck shops selling such foods as confectionery, crisps and fizzy drinks were available in a number of secondary schools during morning breaks and sometimes at lunchtimes. However, some schools were reluctant to close tuck shops or stop selling popular, but unhealthy items as they relied on proceeds for school fundraising.

11.47 Pupils, sometimes restricted to older ones, were allowed out at lunchtime in case study secondary schools. This affected the uptake of school meals, and consequently the ability of providers to influence diet. Pupils chose to go out rather than eat in school for a variety of reasons including the availability of nearby alternatives. Very often those alternatives served less healthy options and a few such outlets were reported to be actively encouraging pupils' lunchtime trade. Some of the catering staff in secondary schools felt they faced a dilemma in that if they ceased to provide less healthy options similar to those on offer externally, or if they priced them higher than external outlets, they believed uptake of school meals would fall.

11.48 Some pupils in both secondary and primary case study schools chose to eat packed lunches rather than meals provided through schools. In some cases packed lunches were brought in as a healthier alternative to school lunches or due to special dietary requirements. Generally though, staff in the case study schools believed packed lunches to be a less healthy option. They also felt unable to influence the content to a great extent, although one or two had attempted to suggest healthy options for packed lunches to parents.

Conclusions

11.49 This first phase of the longitudinal research study was intended as a baseline, against which future change can be measured. Fieldwork carried out in primary and special schools immediately prior to the deadline for introduction of *Hungry for Success* recommendations in December 2005. Fieldwork in secondary schools was completed in June 2005, a full eighteen months before the recommendations were due to be implemented in those schools. It is important to bear the timing of the research in mind when reading this report.

11.50 The research was conducted using case studies of individual schools. The intent of using a case study approach is to encompass as wide a range of different experiences and situations as possible, rather than to provide a representative sample of all schools. This means that the findings cannot be generalised to the wider population of schools. This is particularly true of the special schools sector, where only two were included in the research.

Instead, the case studies are intended to provide insights into the kinds of issues and circumstances that schools may be experiencing before deadline dates for implementation.

11.51 Given the nature and timing of the research, it might have been expected that most of the schools would not have made much progress against the recommendations. In practice, the picture is much more complex, as almost all schools met elements of one or more recommendations. In one instance a primary school appeared to be ahead of the pace of change introduced by the local authority and their progress appeared to have temporarily stalled.

11.52 It might also have been expected that primary and special schools would be further ahead in implementation than secondary schools, given the timing of the introduction. This was broadly the case, although the leading secondary schools were ahead of lagging primary schools on aspects of implementation. One special school appeared not to have been included in changes to food provision introduced by the local authority.

11.53 The precise situation of schools in relation to implementation varied due to a complex interaction of the nature of the school itself (sector, size, location); the education authority area in which it is situated; the physical environment; the Head Teacher, teaching and catering staff, the pupils and the culture or ethos within the school. It is difficult to pinpoint which of these elements are most important in determining the progress made. However, the research indicated that the role of the education authority in leading implementation was very important. For example, recent changes to school meals provision in one case study secondary school, introduced by the local education authority, appeared to be more aimed at achieving cost savings than working towards implementing the recommendations of *Hungry for Success*.

11.54 Some case study schools were struggling partly due to circumstances outwith their control; for example, one secondary school's location means that alternative outlets serving lunch time food were plentiful and uptake of school meals was extremely low. In another case study, a primary school was limited by its size which meant the potential for improving the social experience of lunch was limited. Problems such as these appear to present strong barriers. However, it was evident that staff in the school, both catering and teaching staff, had a strong part to play in the level of progress being made towards the recommendations. Staff in a number of case study schools were managing to overcome such barriers or were concentrating on areas that were in their control so that some progress was being made.

11.55 While progress was variable across case study schools, some general conclusions about broad progress on recommendations can be drawn. The level of progress that had been made on individual recommendations is discussed below. When reading these, the timing of the research should be remembered. In case study primary and special schools the research was carried out between September and December 2004, prior to the deadline for implementation of the recommendations. In case study secondary schools research was carried out between January and June 2005. The deadline for implementation of the recommendations in secondary schools is December 2006.

Recommendations where progress has been made

11.56 The recommendation where most progress appears to be being made relates to the nutrient standards (**recommendation 3**). Specifically changes to menus and recipes, as well as changes to product offerings in primary schools and some secondary schools, have laid the foundations to ensure school meals eaten by individual pupils within most case study schools have the potential to meet the guidelines on menu planning by food group.

11.57 Progress on **recommendation 4** (the elimination of advertising of high fat and high sugar food and drink) is good in primary schools.

11.58 Secondary schools appear to be making good progress on the introduction of payment systems to preserve the anonymity of pupils in receipt of free school meals (**recommendation 9**).

Recommendations where little or no progress has been made

11.59 In contrast, little progress had been made in most case study primary schools on **recommendation 9**, although one primary school was about to have a cashless system implemented in the school just after the time of fieldwork. It should be noted however that the issue this recommendation was designed to address, that of the stigma associated with receiving free school meals, was not considered to be a problem in most case study primary schools.

11.60 In both primary and secondary schools, it did not appear that many dining and teaching assistants were being used in a supervisory capacity (**recommendation 14**), although there were good examples of supervision which did not always involve members of the senior management team. Supervision was usually of behaviour rather than food choices.

11.61 With one or two exceptions, the research uncovered little evidence of strong links being made between the curriculum and the food being served in schools (**recommendation 5**). That said, healthy eating was being taught to some extent in most schools and pupils on the whole appeared relatively well informed on the subject.

11.62 Similarly there was little evidence of strong links being forged between senior management teams and school meals provision (**recommendation 15**) in support of the whole-child approach, and very few examples of partnership working (**recommendation 7**).

11.63 Training for catering and dining staff on food and health has been limited up to this point (**recommendation 22**).

11.64 With the exception of the two special schools, within the parameters of the research it appeared pupils with special educational needs were being catered for informally at a local level, rather than systematically (**recommendation 2**).

Other recommendations

11.65 Progress on remaining recommendations was more variable. A number of schools in all sectors had made changes which at least attempted to meet individual recommendations. For example, some progress had been made in recommendations relating to pupil consultation (**recommendation 8**); maximising the social experience (**recommendation 11**); addressing queuing difficulties (**recommendation 12**); provision of sufficient cash machines for smart cards (**recommendation 10**); and information provision and incentivising healthy choices (**recommendation 16**). Often, such attempts appeared piecemeal rather than more structured.

11.66 There were two recommendations relating to changes to the physical dining environment (**recommendations 17 and 18**). Not much progress had been made in changing the physical environment, although often schools were dependent on local authorities to be able to introduce major change. Where school dining rooms had been refurbished, pupils were consulted.

11.67 Lunchtime restructuring (**recommendation 13**) is also an area in which local authorities take a leading role, although the research did provide one example of where the school day had been restructured to allow the introduction of staggered sittings.

ANNEX 1 METHODS

General summary of approach

1 A case study approach was used, involving detailed study of school meal provision in 18 schools from 8 local authorities across Scotland. The local authorities were chosen to reflect a balance of urban and rural, large and small local authorities, and to include local authorities considered by the steering group to be at different stages in their implementation of *Hungry for Success*.

2 Within local authorities, schools were selected to ensure a balance of schools with high, medium and low school rolls and with different levels of free school meals entitlement. The 18 schools selected comprised 8 primary, 8 secondary and 2 special schools. Annex 2 provides more information about the criteria used to select individual schools

3 A researcher from TNS System 3 Social spent three full days conducting research at each of the selected schools. A wide range of research methods was adopted, in order to provide as detailed information as possible about current provision. The research was also designed with the aim of collecting information which can be used to measure the impact of future changes to school meals on pupil's attitudes and behaviour. In summary, researchers conducted the following research in each school:

- An attitudinal survey of a sample of primary 5 – primary 7 pupils in each school
- A “diet diary”, completed by a sample of pupils from each school. Primary school pupils completed the diary over five days and those from secondary and special schools for one day
- Qualitative interviews with pupils in ‘friendship’ pairs or small groups
- Qualitative interviews and consultation with Head Teachers and/or senior management
- Qualitative research with dining room and catering staff
- Observation and other research in and around the dining room, including: photographing the dining room, individual meals and displays of food, advertising and promotional materials and displays around the school relating to healthy eating; sampling school meals; weighing portions of food served to pupils; collecting information on menus and recipes; observing the general environment, queuing arrangements, pupils behaviour, etc.
- Collection of current menus and recipes
- Collection of information on other food providers in the local area that might be used by pupils (where relevant)

4 The results of baseline study are reported in the following ways:

- Individual school reports following a similar format to this report (excluding diet diary and attitudinal questionnaire information) and summarising the position within the case study school at the time of the research (unpublished)
- Supporting database of information for each school including photographs of the environment and provision within schools; transcripts of interviews with adults in the

school; recipe and menu information; field notes and other supporting documentation (unpublished)

- SPSS database of the results of the pupil questionnaire and diet diary
- Published report providing a detailed overview of the position in all case study schools
- Insight publication providing a summary overview of the research and its results
- Database of all materials used in the study and guidance on using the materials

Limitations on the research

5 While the researchers attempted to collect information relevant to as many of the recommendations as possible, the research was conducted solely in schools. We were not able, within the scope of the study, to conduct research with parents or with education authorities. This does place some limitations on our ability to comment on all of the recommendations included in *Hungry for Success*, particularly in relation to recommendations involving action by local authorities. Specific recommendations which we feel this research is in a limited position to comment on include:

Recommendation 1: *In any Best Value review, the role of the school meal service as part of the education and health strategies should be taken into account. It should not be considered simply as a commercial trading activity*

Recommendation 6: *The Scottish Health Promoting Schools Unit should take the recommendations of the Panel into consideration when developing standards for health promoting schools*

Recommendation 19: *Education authorities should consider the introduction of incentive schemes to promote healthier choices and increase the take-up of school meals*

Recommendation 20: *Education authorities should consider the introduction of staff incentive schemes to recognise innovation and celebrate success*

Recommendation 21: *Local authorities, guided by CoSLA as appropriate, should incorporate strategies for implementing the recommendations of this report into mainstream planning processes that will empower and enable schools and school communities to adopt the recommendations*

Recommendation 23: *Monitoring of the Implementation of the Scottish Nutrient Standards for School Lunches, and related aspects, should be undertaken using the four levels of monitoring proposed in this report, and should involve HM Inspectorate of Education working, as appropriate, with other relevant agencies*

6 It should also be noted that, as this study was not intended as a scientific study investigating the nutritional content of foods served, no analysis took place of foods against the detailed nutrient standards and specifications contained in *Hungry for Success*, and only limited investigation of portion size took place.

ANNEX 2 CASE STUDY SCHOOLS - CRITERIA FOR SELECTION

Table 1: Sample frame for primary schools

Number	School sector	Local Authority	School roll	FSM entitlement
1	Primary	1 (Stirling)	High	High
2	Primary	2 (Highland)	Medium	Medium
3	Primary	3 (Angus)	Small	Low
4	Primary	4 (North Ayrshire)	High	Medium
5	Primary	5 (Edinburgh)	Medium	Low
6	Primary	6 (West Lothian)	Small	High
7	Primary	7 (Glasgow)	High	High
8	Primary	8 (Borders)	Small	Low

Eight local authorities were selected for the Primary School case studies. Within these local authorities, the sample structure was designed to select three schools with ‘High’ school rolls (over 233 pupils), two schools with ‘medium’ school rolls (99-232 pupils) and three schools with ‘small’ school rolls (0-98 pupils). Entitlement to Free School Meals was calculated as ‘high’ (over 28.2% of school roll), ‘medium’ (13.6-28.2%) and ‘low’ (0-13.6%).

Table 2: Sample frame for secondary schools

Number	School sector	Local Authority	School roll	FSM entitlement
1	Secondary	1 (North Ayrshire)	High	High
2	Secondary	2 (Edinburgh)	High	Medium
3	Secondary	3 (West Lothian)	High	Low
4	Secondary	4 (Stirling)	Medium	High
5	Secondary	5 (Angus)	Medium	Low
6	Secondary	6 (Glasgow)	Small	High
7	Secondary	7 (Highland)	Small	Medium
8	Secondary	8 (Borders)	Small	Low

Eight local authorities were selected for the Secondary School case studies. Within these local authorities, the sample structure was designed to select three schools with ‘High’ school rolls (over 981 pupils), two schools with ‘medium’ school rolls (705-980 pupils) and three schools with ‘small’ school rolls (0-704 pupils). Entitlement to Free School Meals was calculated as ‘high’ (over 19.0% of school roll), ‘medium’ (8.7-19.0%) and ‘low’ (0-8.7%).

Table 3: Sample frame for special schools

Number	School sector	Local Authority	School roll	FSM entitlement
1	Special	1 (Edinburgh)	Medium	-
2	Special	2 (Glasgow)	Medium	-

Forty three (43) special schools with a ‘medium’ school roll of more than 31 pupils were considered in the sampling framework. Two schools were selected, one from Edinburgh and the other Glasgow. Details of FSM entitlement were not available at the point of sampling.

ANNEX 3 GUIDANCE FOR PRIMARY AND SECONDARY SCHOOLS

Table 7: Guidance for Primary and Secondary Schools – Notes on Primary School and Special School Menus

Group (Bread, Cereals Potatoes)	1 other and	Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Bread, Cereals Potatoes	other and	Every school lunch should contain a portion or portions of food from this group.	<p>All schools served portions of food from this group daily. For variety, some had a 'potato of the day' (e.g. roasted, mashed, baked on different days) and a 'bread of the day' (e.g. pitta, brown, French, on different days). Other schools served a choice of different breads or potatoes every day.</p> <p>In one school, the potato option one day was chips (with no alternative) and on another day the option was smiley faces (with no alternative).</p>
Bread		<p>A variety of extra bread, including brown and wholemeal, should be available daily as a meal accompaniment for all pupils, at no additional charge. Crusty bread, quarters of bread rolls and buns are popular and can be offered in baskets at the counter.</p> <p>Garlic bread should be served a maximum of twice a week.</p> <p>Bread can be provided in a variety of forms to replace fried products including naan, pitta and crusty bread.</p> <p>The maximum sodium content of bread will be specified in the product specifications.</p>	<p>In many schools, a portion of free bread was offered daily with every meal. In several cases the bread was automatically put on the pupils' plate by catering staff, in others there was a basket of bread from which pupils could help themselves.</p> <p>Garlic bread was usually served only once or twice a week.</p> <p>While brown and wholemeal bread was available at times in most schools, it was rarely available at all times.</p> <p>In one school, bread was not offered (except in sandwiches) during the fieldwork period. In another school, bread was only available on the two days when soup was served.</p>
Rice, Pasta and Noodles		Rice and pasta should each be offered a minimum of once a week . Noodles should be offered where appropriate , e.g. with stir-fry or sweet and sour dishes.	<p>In many schools, pasta is offered a minimum of twice a week and rice is offered once a week. Most schools served noodles at least occasionally (e.g. once a month) with stir fry dishes.</p> <p>Some schools served rice and pasta less often. In one school, rice was only served once a fortnight and in another, rice was only served once a month. In a third school, pasta or rice was served once a week, rather than both being offered a minimum of once a week.</p>

Group (Bread, Cereals Potatoes) cont...	1 other and Guidance for Primary and Secondary Schools	Notes on primary and special school menus
<p>Potatoes</p>	<p>The following products should be served a maximum of twice a week in primary (and ideally in secondary) schools: roasts, chips, smiley faces and other shaped products, e.g. Alphabites, croquettes and waffles.</p> <p>Local Authority Purchasing Officers should be encouraged to buy chips with as low fat content as possible.</p> <p>The maximum fat content of potato products will be specified in the product specifications. If possible, all potato products should be oven baked rather than fried.</p> <p>Where a fried item is offered, a non-fried alternative should also be offered.</p>	<p>All schools served chips, roasts and shaped potato products a maximum of twice a week and several schools served them less often.</p> <p>In some schools, however, there was not a non-fried alternative on days that fried potato dishes were served.</p>

Group (Fruits and vegetables)	Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Fresh, Frozen, Canned and Dried Varieties and Fruit Juice	<p>Every school lunch whether hot, cold, or a packed lunch should contain two portions of food from this group.</p> <p>The menu as a whole should provide a choice of at least two vegetables and two fruits in addition to fruit juice every day and throughout the lunch service. At least one of these vegetables should be served free of added fat including salad dressings.</p>	<p>Many schools served a choice of at least two vegetables every day (often a hot vegetable option and salad) but some schools only had one vegetable on one or more days.</p> <p>In all cases, at least one of the vegetables was served free of added fat and, in most cases; both the hot vegetable and the salad were free of added fat.</p> <p>In most schools, at least two fruits were offered each day. In one school, fruit was not offered on days when soup was served.</p>
Vegetables	<p>Fruit and vegetable choices should be actively promoted and consideration given to providing vegetables inclusively in the price of every meal. They should also be served in an appealing and easy to eat way.</p> <p>Vegetable-based soup should contain a minimum of one portion of vegetables per serving and can then count as one portion.</p> <p>Maximum sodium content of soup will be specified in product specifications.</p> <p>Baked beans should be served as a vegetable a maximum of twice a week. Canned spaghetti and similar products should not be served in place of a vegetable.</p> <p>If beans or pulses form the protein part of a main course, a vegetable that is not beans or pulses should also be available.</p>	<p>In many schools, vegetables were included in the price of a main dish although pupils often refused them. In one school, with a cash cafeteria system rather than a set price for a meal, vegetables were 27 p per portion.</p> <p>Salad vegetables and cold vegetables were often served in an appealing and easy to eat way (e.g. cucumber sticks, carrot sticks, and packaged in little tubs or packets). In general, there was less evidence of hot vegetables being served in ways designed to appeal to pupils.</p> <p>Most schools did not served baked beans in place of vegetables and no schools served baked beans as a vegetable more than twice a week.</p>
Fruit	<p>Where there is choice, a dessert which provides at least one portion of fruit should be offered every day. Where there is no choice, a fruit-based dessert such as fresh fruit, fruit tinned in juice, fruit salads, fruit crumble, fruit jelly or fruit pie should appear on the menu a minimum of three times a week.</p> <p>Pies, crumbles and other composite fruit dishes should contain a minimum of one portion of fruit per serving.</p>	<p>Most schools offered fresh fruit daily. Prepared packets of fruit (e.g. grapes) were more popular than a mixed fruit basket.</p> <p>One school served a fruit-based tart, crumble or jelly every day. In other schools, apart from fresh fruit, fruit-based desserts tended to be served less often.</p> <p>In one school, fruit was only served on the two days that puddings were served (and sometimes in the packed lunches served on Fridays) and not on days when soup was served.</p>

Group 3 (Milk and Milk Products)	Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Milk and Milk Products, Yogurts and Milk-based Desserts	Most school lunches should contain a portion or portions of food from this group.	Almost all schools served milk to drink every day (see section below). Most also served yogurt daily. Other milk- based desserts were less common.
Milk	Plain or flavoured drinking milk should be available as an option every day . Semi-skimmed and skimmed milks have the same amount of calcium as whole milk and should be provided for drinking as well as for cooking.	In most schools, both plain and flavoured semi-skimmed milk was available every day. In one school, milk was an option at break time but not at lunchtime.
Cheese	<p>Cheese should be served as the main protein item instead of meat or fish a maximum of twice a week.</p> <p>Cheese to be served as cheese and biscuits, as part of a salad or as a filling for sandwiches and baked potatoes should have as low a fat and sodium content as possible. The maximum fat and sodium content of cheese will be specified in the product specifications.</p> <p>Vegetarian alternatives to cheese should be available a minimum of three times a week.</p> <p>Where there is no choice, cheese as a sandwich filler should be offered a maximum of three times a week.</p>	<p>In all schools, cheese was served as the main protein item instead of meat or fish a maximum of twice a week. However, in most schools, there was the <i>option</i> to have cheese as the main protein item (e.g. in pasta, in a sandwich, as a baked potato filling) more than three times a week – in several schools it would be possible to choose a cheese item daily.</p> <p>In one school, a vegetarian alternative to cheese was served only twice a week in two weeks out of four (there was an alternative to cheese three times a week the other two weeks out of four).</p> <p>In some schools, the canteen staff were not aware of any vegetarian pupils and on most days there was not a vegetarian alternative to cheese.</p>

Group (Meat, Fish and Alternatives)	4 Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Meat, Fish and Alternatives, e.g. Eggs, Peas, Beans and Lentils	Every school lunch should contain a portion or portions of food from this group of protein.	All schools offered a portion or portions of food from this group every day.
Beef, Pork, Lamb and Poultry	<p>Red meat (beef, pork and lamb) based meals should be served a minimum of twice a week.</p> <p>Lean meat should be used in dishes containing meat and this will have a fat content of about 10%. Caterers should take steps to reduce the fat content of their meat dishes as much as possible.</p> <p>The maximum fat and sodium content of stews, casseroles, meatballs and curries will be specified in the product specifications.</p>	Most schools served red meat at least twice or three times a week.
Processed Meat and Products Pies	<p>Processed meat products, i.e. hot dogs, frankfurters, sausages, beefburgers, meatballs, haggis and shaped poultry products(e.g. nuggets), pastry topped pies and other pastry products (e.g. bridies, sausage rolls, Cornish pasties, Scotch Pies) should be served a maximum of once a week.</p> <p>The vegetable content of composite dishes such as pies should be increased where possible. Potato-topped pies will have a lower fat content and should be encouraged in preference to pastry-topped pies.</p>	<p>Some schools served processed meat only once a week. However, in some schools processed meat was available twice or three times a week and in once school it was available every day as the 'snack option' (e.g. chicken nuggets, sausage rolls, turkey drummers).</p> <p>Some schools always served potato-topped pies rather than pastry-topped pies and most schools served potato-topped pies some of the time.</p>
Composite Dishes	The maximum fat and sodium content of lasagne, moussaka, macaroni cheese, spaghetti bolognese, tuna pasta bake, ravioli and other composite dishes will be specified in the product specifications. Vegetable content should be increased where possible.	It was not possible to ascertain the fat and sodium content of composite dishes within the parameters of this research.
Fish	<p>Fish, in addition to tuna fish, should appear on the menu a minimum of once a week.</p> <p>Oil-rich fish (sild, sardines, kippers, salmon, mackerel and herring) should be served once a week. Mackerel salads and pâtés are often popular.</p>	<p>Most schools served fish (other than tuna) once a week but rarely more often.</p> <p>Many schools did not serve oily fish. Several had tried various dishes but found that they were very unpopular.</p>
Processed Fish Products	The maximum fat and sodium content of fish portions, fish fingers and shaped fish products will be specified in the product specifications. Any fish products that do not meet these specifications should be served a maximum of once a week .	At least one school did serve processed fish products more than once a week but it was not possible to ascertain whether they met the required specifications.

Group (Meat, Fish and Alternatives)	4 Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Pizza	Maximum fat and sodium content for pizza will be specified in the product specifications and its frequency on the menu determined by its ultimate specification. Vegetable toppings should be encouraged and used wherever possible.	It was not possible to ascertain the fat and sodium content of pizza within the parameters of this research. Some vegetable toppings were used but, in many schools, pizzas were predominantly cheese and tomato.
Vegetarian Products	Vegetarian products resembling meat products, e.g. sausages and burgers made from textured vegetable protein (TVP) should have similar protein content to meat products. Maximum fat and sodium content will be specified in the product specifications.	Vegetarian meat-substitutes were rarely used. Where they were, it was not possible to ascertain the protein, fat or sodium content.
Stir-in Sauce	Maximum fat and sodium content will be specified in the product specifications for stir-in sauces for bolognese, stews, curries and other ethnic dishes.	It was not possible to ascertain the fat and sodium content of these products within the parameters of this research.

Group 5 (Foods containing Fat and Foods and Drinks containing sugar)	Guidance for Primary and Secondary Schools	Notes on primary and special school menus
Foods containing Fat and Foods containing Sugar	The use of foods from this group should be limited . There should be no active promotion or advertising of full fat crisps, confectionery or fizzy, sugary soft drinks within the dining room.	See sections below.
Sweetened Soft Drinks	Fizzy, sugary soft drinks should not be served as part of school lunch in primary schools and should not be encouraged in secondary schools. Carbonated water, plain water, milk and fruit juices are considered appropriate drinks. Flavoured waters are popular with children and low sugar versions are acceptable. We note the desirability to gradually wean Scottish children away from a predilection for sweet flavours. There is a popular movement amongst children to drinking plain water and this should be encouraged.	Almost all schools do not serve fizzy, sugar soft drinks as part of the school lunch and most offer plain water, flavoured water (generally with artificial sweeteners), milk, flavoured milk and fruit juice every day. In general, there did not seem to be an attempt to encourage pupils to choose plain water over flavoured water, or plain milk over flavoured milk.
Confectionery, e.g. Chocolate, Sweets	Where confectionery is still being sold, it should be set away from the food service points. A working distinction is made between manufactured confectionery and home baking.	Most schools did not serve manufactured confectionery and offered home baking instead.
Puddings, Cakes, Biscuits, Jam, Jelly and Ice Cream	Where there is no choice, all desserts on offer should be fruit and/or milk-based (including yogurt). Caterers are, however, encouraged to review home-baking recipes to lower fats and sugars and include nutrient-rich, whole- food ingredients.	Most schools did provide a choice of desserts, which included yogurt and/or a fruit-based pudding. Many cooks had reduced the sugar and fat content of home baking and used a mix of wholemeal and plain flour.
Butter and Spreads	Only polyunsaturated and monounsaturated fats, spreads and oils and low fat spreads should be used.	It was not possible to analyse this within the parameters of this research.
Cooking Fats and Oils	Only polyunsaturated and monounsaturated fats, spreads and oils should be used.	It was not possible to analyse this within the parameters of this research.
Savoury Potato Snacks, Crisps and Corn Snacks	Crisps should be offered as part of a combination meal option/meal deal or packed lunch a maximum of twice a week . We believe that many pack sizes are too large and the fat content per 100g is excessive. The maximum pack size, fat and sodium content will be specified in the product specifications.	Two schools offered crisps every day (as part of the cold or snack meal option), one offered crisps once a week while several schools never served crisps.

Table 8: Guidance for Primary and Secondary Schools – Notes on Secondary School Menus

Group 1 (Bread, other Cereals and Potatoes)	Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Bread, other Cereals and Potatoes	Every school lunch should contain a portion or portions of food from this group.	All schools served a portion or portions of food from this group every day. Several schools served a 'potato of the day' (e.g. boiled, roasted, mash) and several served baked potatoes daily in addition.
Bread	A variety of extra bread, including brown and wholemeal, should be available daily as a meal accompaniment for all pupils, at no additional charge. Crusty bread, quarters of bread rolls and buns are popular and can be offered in baskets at the counter. Garlic bread should be served a maximum of twice a week . Bread can be provided in a variety of forms to replace fried products including naan, pitta and crusty bread. The maximum sodium content of bread will be specified in the product specifications.	Most schools offered a variety of breads throughout the week, although in some schools only one or two bread choices might be available at any one time. Brown or wholemeal bread was not always available daily. In at least one school, garlic bread was available every day in the course of one week.
Rice, Pasta and Noodles	Rice and pasta should each be offered a minimum of once a week . Noodles should be offered where appropriate , e.g. with stir-fry or sweet and sour dishes.	Most schools offered rice and pasta at least once a week, and more often in many cases. Some schools offered a pasta dish every day. Noodles were also served with stir fry dishes.
Potatoes	The following products should be served a maximum of twice a week in primary (and ideally in secondary) schools: roasts, chips, smiley faces and other shaped products, e.g. Alphabites, croquettes and waffles. Local Authority Purchasing Officers should be encouraged to buy chips with as low fat content as possible . The maximum fat content of potato products will be specified in the product specifications. If possible, all potato products should be oven baked rather than fried. Where a fried item is offered, a non-fried alternative should also be offered.	Several schools served chips every day but several had introduced one, two or three 'chip free' days every week. In one school the 'chip free day' was deliberately not publicised in advance to prevent pupils choosing to go outside the school for lunch that day. Several schools had reduced the size of a portion of chips.

Group 2 (Fruits and vegetables)	Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Fresh, Frozen, Canned and Dried Varieties and Fruit Juice	<p>Every school lunch whether hot, cold, or a packed lunch should contain two portions of food from this group.</p> <p>The menu as a whole should provide a choice of at least two vegetables and two fruits in addition to fruit juice every day and throughout the lunch service. At least one of these vegetables should be served free of added fat including salad dressings.</p>	<p>Most schools offered at least one vegetable (often two) plus salad every day. There was often the option of a salad box as a 'main' meal choice plus the option to have a portion of salad, from a salad bowl, on the side.</p> <p>Most schools also added small amounts of vegetables to main meals e.g. in pasta sauces and stir fries and included small amounts of salads in burgers and in sandwiches/wraps etc.</p> <p>In at least one school, the salad was always served with a light dressing. In most cases, there was no added fat on either salad or on other vegetables.</p> <p>All schools offered a choice of at least two fruits every day. However, much of the fruit was whole fruit from a fruit bowl and was not a popular choice. Many schools also served packets of grapes or melons which were much more popular.</p> <p>Most, but not all, schools offered pure fruit juice (from concentrate) every day. In one school there was fruit flavoured water but no fruit juice and in another there was diluting juice from concentrate but no pure fruit juice.</p>
Vegetables	<p>Fruit and vegetable choices should be actively promoted and consideration given to providing vegetables inclusively in the price of every meal. They should also be served in an appealing and easy to eat way.</p> <p>Vegetable-based soup should contain a minimum of one portion of vegetables per serving and can then count as one portion. Maximum sodium content of soup will be specified in product specifications.</p> <p>Baked beans should be served as a vegetable a maximum of twice a week. Canned spaghetti and similar products should not be served in place of a vegetable.</p> <p>If beans or pulses form the protein part of a main course, a vegetable that is not beans or pulses should also be available.</p>	<p>In most cases vegetables or salad were served free with a main meal.</p> <p>In several schools, homemade soup (often vegetable based) was served daily. In other schools, soup was served once or twice a week, and in others it was rarely served. Soup was not particularly popular in secondary schools.</p> <p>In general, baked beans were served around once a week. They were never served in place of a vegetable and more than once a week.</p>
Fruit	<p>Where there is choice, a dessert which provides at least one portion of fruit should be offered every day. Where there is no choice, a fruit-based dessert such as fresh fruit, fruit tinned in juice, fruit salads, fruit crumble, fruit jelly or fruit pie should appear on the menu a minimum of three times a week.</p> <p>Pies, crumbles and other composite fruit dishes should contain a minimum of one portion of fruit per serving.</p>	<p>As noted above, fresh fruit was on offer daily in all schools. Fruit-based desserts were less common and some schools were rarely served in some schools.</p>

Group 3 (Milk and Milk Products)	Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Milk and Milk Products, Yogurts and Milk-based Desserts	Most school lunches should contain a portion or portions of food from this group.	<p>All schools had at least a portion of milk or milk products available daily.</p> <p>Yogurt was a popular dessert in many schools and was usually offered daily. In one school, however, there were very few on offer (usually around two on display) and yogurt did not seem popular.</p>
Milk	Plain or flavoured drinking milk should be available as an option every day . Semi-skimmed and skimmed milks have the same amount of calcium as whole milk and should be provided for drinking as well as for cooking.	Most schools offered both plain and flavoured milk and it was usually semi-skimmed. Flavoured milk tended to be more popular than plain. Several schools provided plain and flavoured milk in cartons while in one school pupils dispensed their own milk from a dispenser and could add flavoured syrup (containing sugar) – most pupils did add the syrup.
Cheese	<p>Cheese should be served as the main protein item instead of meat or fish a maximum of twice a week.</p> <p>Cheese to be served as cheese and biscuits, as part of a salad or as a filling for sandwiches and baked potatoes should have as low a fat and sodium content as possible. The maximum fat and sodium content of cheese will be specified in the product specifications.</p> <p>Vegetarian alternatives to cheese should be available a minimum of three times a week.</p> <p>Where there is no choice, cheese as a sandwich filler should be offered a maximum of three times a week.</p>	<p>All schools had meat or fish on offer almost every day and cheese would be served as the main protein item a maximum of once a week.</p> <p>However, in most schools, pupils <i>could</i> choose cheese as the main protein item every day.</p> <p>In two schools, macaroni cheese was on offer daily. In most schools, cheese based sandwiches/wraps etc. were on offer daily and in one school there were no non-cheese based sandwiches on offer during the fieldwork period. Cheese as a baked potato filling was on offer daily in some schools.</p> <p>Several schools offered a vegetarian alternative to cheese less than three times a week. In one school, the vegetarian option was macaroni cheese on each day of fieldwork. In another, there were few vegetarian alternatives to cheese – tomato pasta was served about once a week and on other days the choice was macaroni cheese or cheese based sandwiches/wraps etc.</p>

Group (Meat, Fish and Alternatives)	4 Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Meat, Fish and Alternatives, e.g. Eggs, Peas, Beans and Lentils	Every school lunch should contain a portion or portions of food from this group of protein.	All schools offered a portion or portions of food from this group every day.
Beef, Lamb and Poultry	<p>Red meat (beef, pork and lamb) based meals should be served a minimum of twice a week.</p> <p>Lean meat should be used in dishes containing meat and this will have a fat content of about 10%. Caterers should take steps to reduce the fat content of their meat dishes as much as possible.</p> <p>The maximum fat and sodium content of stews, casseroles, meatballs and curries will be specified in the product specifications.</p>	All schools served red meat a minimum of twice a week and many served it at least three times.
Processed Meat Products and Pies	<p>Processed meat products, i.e. hot dogs, frankfurters, sausages, beefburgers, meatballs, haggis and shaped poultry products (e.g. nuggets), pastry topped pies and other pastry products (e.g. bridies, sausage rolls, Cornish pasties, Scotch Pies) should be served a maximum of once a week.</p> <p>The vegetable content of composite dishes such as pies should be increased where possible. Potato-topped pies will have a lower fat content and should be encouraged in preference to pastry-topped pies.</p>	<p>Most schools served processed meat products every day.</p> <p>Many schools served pastry topped pies – some every day and some only once a fortnight or once a month. Most schools also served potato topped pies but generally less often than pastry topped pies.</p> <p>In one school, a pastry topped steak pie was on offer every day for 1 week in 4, and no potato topped pies were served.</p>
Composite Dishes	The maximum fat and sodium content of lasagne, moussaka, macaroni cheese, spaghetti bolognese, tuna pasta bake, ravioli and other composite dishes will be specified in the product specifications. Vegetable content should be increased where possible.	<p>It was not possible to ascertain the fat or sodium content of composite meals within the parameters of this research.</p> <p>In some schools, an effort was being made to increase the vegetable content of these dishes</p>
Fish	<p>Fish, in addition to tuna fish, should appear on the menu a minimum of once a week.</p> <p>Oil-rich fish (sild, sardines, kippers, salmon, mackerel and herring) should be served once a week. Mackerel salads and pâtés are often popular.</p>	<p>Several schools offered fish (often breaded haddock) once a week but a number serve fish much less often. In one school, fish was offered once every 4 weeks and another school never serves fish.</p> <p>Most schools never served oily fish.</p>
Processed Fish Products	The maximum fat and sodium content of fish portions, fish fingers and shaped fish products will be specified in the product specifications. Any fish products that do not meet these specifications should be served a maximum of once a week .	Fish products were rarely served. Where they were, it was not possible to ascertain the fat and sodium content.

Group (Meat, and Alternatives)	4 Fish Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Pizza	Maximum fat and sodium content for pizza will be specified in the product specifications and its frequency on the menu determined by its ultimate specification. Vegetable toppings should be encouraged and used wherever possible.	Several schools served pizza every day and it was a popular choice. In most cases, this was cheese and tomato pizza with no other vegetables. One school served a pepperoni pizza.
Vegetarian Products	Vegetarian products resembling meat products, e.g. sausages and burgers made from textured vegetable protein (TVP) should have a similar protein content to meat products. Maximum fat and sodium content will be specified in the product specifications.	Vegetarian meat-substitutes were rarely used. Where they were, it was not possible to ascertain the protein, fat or sodium content within the parameters of this research.
Stir-in Sauce	Maximum fat and sodium content will be specified in the product specifications for stir-in sauces for bolognese, stews, curries and other ethnic dishes.	It was not possible to ascertain the fat and sodium content of these products within the parameters of this research.

Group 5 (Foods containing Fat and Foods and Drinks containing sugar)	Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Foods containing Fat and Foods containing Sugar	The use of foods from this group should be limited . There should be no active promotion or advertising of full fat crisps, confectionery or fizzy, sugary soft drinks within the dining room.	<p>Several schools still serve fizzy drinks at lunchtime, from vending machines and/or fridges. However, several others have stopped offering fizzy drinks at lunchtime.</p> <p>The situation with crisps and confectionery was similar – some schools still offer both, while some have stopped offering them. However, in schools where no crisps or confectionery are sold, home baking is very popular.</p> <p>Where crisps are still offered, a low fat option is often also on offer.</p>
Sweetened Soft Drinks	<p>Fizzy, sugary soft drinks should not be served as part of school lunch in primary schools and should not be encouraged in secondary schools. Carbonated water, plain water, milk and fruit juices are considered appropriate drinks. Flavoured waters are popular with children and low sugar versions are acceptable. We note the desirability to gradually wean Scottish children away from a predilection for sweet flavours. There is a popular movement amongst children to drinking plain water and this should be encouraged.</p> <p>Supplementary Guidance for Secondary Schools: We recognise that sweetened soft drinks will be available each day in some secondary schools. However, they should not be served as part of a combination meal or meal deal or packed lunch. These schools may find that a staged progression from sugary fizzy drinks to diet versions and the promotion of lower sugar squashes and flavoured waters is helpful. The promotion of chilled bottled water as well as the adequate provision of freely available drinking water is considered very important</p>	<p>Most schools offered plain and flavoured milk (see section on milk above), plain and flavoured water, and pure fruit juice from concentrate. Several have stopped offering fizzy drinks but several still serve fizzy drinks (see previous section).</p> <p>Flavoured versions of milk and water were often very popular and there was little evidence of pupils being encouraged to choose the plain version (perhaps because staff feel that flavoured milk or water is a better option than a fizzy drink).</p>
Confectionery, e.g. Chocolate, Sweets	<p>Where confectionery is still being sold, it should be set away from the food service points.</p> <p>A working distinction is made between manufactured confectionery and home baking.</p>	<p>Some schools had stopped serving confectionery in the dining hall (although in some cases it was still available from tuck shops and/or vending machines). In others, confectionery was sold at the snack bar and/or the main service points.</p>

Group 5 (Foods containing Fat and Foods and Drinks containing sugar)	Guidance for Primary and Secondary Schools	Notes on Secondary School Menus
Puddings, Cakes, Biscuits, Jam, Jelly and Ice Cream	Where there is no choice, all desserts on offer should be fruit and/or milk-based (including yogurt). Caterers are, however, encouraged to review home-baking recipes to lower fats and sugars and include nutrient-rich, whole- food ingredients.	<p>There was almost always a choice of dessert. All schools offered fresh fruit and most offered yogurt daily. Home baking was also popular. Some schools served 'traditional' puddings which were often fruit and/or milk based, but some rarely served them.</p> <p>Several schools had adapted their home baking recipes and had, for example, increased the use of dried and fresh fruit, increased the use of wholemeal flour, and decreased the fat and sugar content.</p>
Butter and Spreads	Only polyunsaturated and monounsaturated fats, spreads and oils and low fat spreads should be used.	It was not possible to analyse this within the parameters of this research.
Cooking Fats and Oils	Only polyunsaturated and monounsaturated fats, spreads and oils should be used.	It was not possible to analyse this within the parameters of this research.
Savoury Potato Snacks, Crisps and Corn Snacks	Crisps should be offered as part of a combination meal option/meal deal or packed lunch a maximum of twice a week . We believe that many pack sizes are too large and the fat content per 100g is excessive. The maximum pack size, fat and sodium content will be specified in the product specifications.	Several schools sold crisps daily although many also offered lower fat varieties. In some places crisps were available from tuck shops or vending machines but not the main dining hall. Some schools had stopped offering crisps.

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